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This Month in the PSM

This issue of the *Petroleum Supply Monthly* features "Distillate Fuel Oil Overview: Winter 1983-84" (p. ix). This article discusses the outlook for distillate fuel oil during the upcoming heating season based on projections from the Energy Information Administration's most recent *Short-Term Energy Outlook*. This article is followed by "Fuel Oil Trends" (p. xi). This article provides a petroleum overview and highlights distillate and residual fuel oil. A third article, "U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves," (p. xvi) presents an advance summary of information from the U.S. *Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report* scheduled for release next month by the Energy Information Administration.



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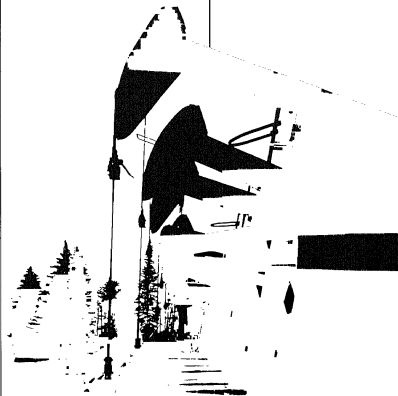
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Petroleum Supply Summary

Average Volume for Period (Million Barrels Per Day)	August			Cumulative January Through August		
	1983	1982	% Change	1983	1982	% Change
Total Product Supplied	15.2	14.8	2.3	14.9	15.4	- 3.0
Motor Gasoline	7.0	6.6	5.4	6.8	6.6	0.5
Distillate Fuel Oil	2.4	2.2	9.4	2.6	2.7	- 4.2
Residual Fuel Oil	1.3	1.5	- 17.6	1.4	1.6	- 22.1
Crude Inputs to Refineries	12.3	11.9	3.2	11.6	11.8	- 1.5
Crude Oil and Natural Gas Liquids Production	10.2	10.2	0.3	10.2	10.2	0.3
Net Imports ¹	5.3	4.4	20.8	4.0	4.2	- 5.8
Net Crude Oil Imports ²	3.7	3.3	9.4	2.6	3.1	- 9.5
SPR Imports	0.3	0.2	58.7	0.2	0.2	44.8
Net Product Imports	1.3	0.6	56.9	1.0	1.0	- 2.1
Crude Oil Stock Withdrawal ³	- 0.11	- 0.23	—	0.02	0.04	—
Product Stock Withdrawal	- 0.43	- 0.04	—	0.22	0.44	—
Stocks at End of Period (Million Barrels)						
Crude Oil ³	350	353	NM			
Motor Gasoline ³	223	227	NM			
Distillate Fuel Oil	142	159	NM			
Residual Fuel Oil	48	53	NM			
Total Product	756	782	NM			
SPR	351	274	26.4			
Total	1,456	1,408	NM			

¹Gross imports of crude oil including Strategic Petroleum Reserve (SPR) and petroleum products less exports of crude oil and petroleum products.

²Excluding SPR.

³Including blending components.

NM = Not meaningful due to new stock basis.

Note: Percent changes are based on unrounded values. August 1983 data are estimates based on weekly data, except for export and Natural Gas Liquids Production estimates which are July 1983 monthly values. Totals may not be equal to sum of components due to independent rounding.

Source: Energy Information Administration, *Petroleum Supply Monthly*, September 1983.

Distillate Fuel Oil Overview: Winter 1983-84

The Energy Information Administration (EIA) projects an average demand level of about 3.2 million barrels per day (MMBD) for distillate fuel oil, during the winter of 1983-84 (October 1983 through March 1984). EIA's projections assume economic recovery, normal weather, and stable or falling prices.¹ The projected demand is about 17 percent higher than the abnormally low winter 1982-83 level of 2.7 MMBD. Despite lower distillate inventories than any end-of-August levels in the last decade, ample time, refining capacity, crude oil stocks, and import capability exist to generate sufficient supplies to meet expected winter demand.

These demand projections are predicated on an average retail price for No. 2 heating oil about 9 cents per gallon less than last winter's average of \$1.16 per gallon. EIA's forecast also assumes a return to normal winter weather. Last winter was the warmest in 30 years, and the population-weighted heating-degree days were about 8 percent below normal. Also, a substantial increase in industrial production over winter 1982-83 levels is assumed.

Distillate demand is highly seasonal, peaking in the winter and falling off in the summer. Seasonal fluctuations in demand have diminished somewhat over the last decade with the steady growth of non-heating uses of distillate. In 1982, half of all deliveries of distillate fuel oil were for transportation uses.

Each summer, refinery production of distillate exceeds demand as refiners build stocks for the heating season. Distillate production reached 2.6 MMBD in August 1983, approximately 0.2 MMBD above demand levels. In recent years, up to 20 percent of production from May through September has been used for building stocks of distillate fuel oils to their seasonal peaks. Distillate production is greatest during the winter months. In 1982, production peaked in November when production rates of 2.9 MMBD were reached. Thus far in 1983, refinery utilization has ranged between 65 and 75 percent. Thus, the capacity exists to produce distillate at 1982 rates or higher and allow refiners to meet demand while building stocks for the heating season.

¹ "Energy Information Administration, Short-Term Energy Outlook (August 1983), DOE/EIA 620(2)83(SQ)-1, (Washington, D.C., 1983).



Crude oil supplies needed for increased production levels are readily available. Crude oil stocks have measured between 341 and 366 million barrels in the past year and were 350 million barrels at the end of August. Crude oil supplies are also available from foreign sources, at prices below those of 1982: the first quarter 1983 crude oil refiner acquisition cost averaged \$29.61 per barrel compared to \$33.05 in the first quarter of 1982. Imported crude oil has been slightly less expensive than domestic crude oil since March 1983, and crude oil imports have revived accordingly.

About 19-20 percent of the yield from refineries is distillate fuel oil, while over twice that amount, on the average, is gasoline. Efforts to build distillate inventories through increased refinery utilization would produce large quantities of motor gasoline. Gasoline demand was essentially flat this past summer, and motor gasoline inventories are at a comfortable level. Thus, there is not a strong incentive to build distillate inventories through production alone, as this could result in larger than desired gasoline inventories.

The alternative to building inventories through production is to increase net imports (gross imports minus exports). Between 1973 and 1981, net imports accounted for 5 to 12 percent of distillate product supplied on an annual basis, but the pattern for net imports of distillate

changed in 1982. Net imports were equivalent to less than 1 percent of demand. Gross imports averaged 93,000 barrels per day, their lowest level in a decade, but, the most notable change was the development of sizable distillate exports. Distillate exports, which had never in the last decade exceeded an annual average of 9,000 barrels per day, reached 74,000 barrels per day. In some months of 1982, exports even exceeded imports and continued to do so in the first three months of 1983.

The top sources of imports in 1982, and for the first four months of 1983, were Western Hemisphere locations (the Virgin Islands, Canada, Puerto Rico, and Venezuela); the top export destinations were more diverse (Japan, Mexico, and the Netherlands). Thus far in 1983, exports have been averaging slightly more than in 1982, with the Far East continuing as the most frequent destination.

Although distillate inventories were at their lowest end-of-August levels in more than a decade, the refining capability, crude oil stocks, and import capability are available to meet demand during the upcoming winter heating season. These sources can be tapped well in advance of the peak consumption period from December through February.

Fuel Oil Trends

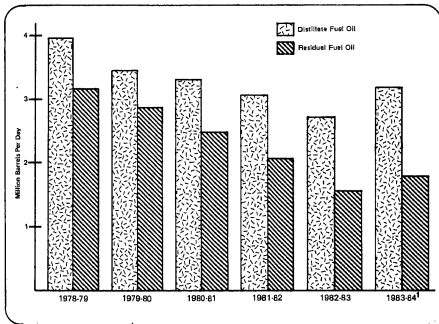
Demand for distillate and residual fuel oils during the coming winter is expected to be well below the peak levels of 5 years ago, but higher than the unusually low levels of the 1982-83 heating season. (See Figure 1). Demand has fallen each year since 1978, because of higher prices, low levels of economic activity, unseasonably mild weather, conservation practices, and fuel switching. Proportionally, the use of distillate fuel oil for home heating has declined, while transportation use of distillate fuels has increased, thereby reducing the amplitude of seasonal differences. Regional distillate demand patterns have changed only slightly. The use of residual fuel oil for electricity generation, the principal end use for this fuel, has also declined steadily over the 5-year period.

Petroleum Overview

Demand for petroleum products peaked in 1978, when the United States consumed an average of 18.8 million barrels per day (MMBD). Since then, a number of factors have contributed to changes in demand for petroleum products including distillate and residual fuels. Some of these factors are:

NOTE: Unless otherwise referenced, the data contained in this article are based on petroleum supply statistics published by the Energy Information Administration (EIA) in the *Weekly Petroleum Status Report* DOE/EIA-0208(83/36), *Petroleum Supply Monthly* DOE/EIA-0106(83/09), *Petroleum Supply Annual* DOE/EIA-0340(83/1 and 2) and predecessor reports. EIA's *Short-Term Energy Outlook* DOE/EIA-0202(83/3Q)-1 (August 1983) is the source for projections.

Figure 1. Heating Season Demand for Distillate and Residual Oils (October - March)



1 Projected.

Sources: Energy Information Administration, *Petroleum Statement Annual* (1978-1980), "Petroleum Supply Annual (1981-1982)," "Petroleum Supply Monthly" and "Short-Term Energy Outlook (1983-1984)."

- **Crude oil prices:** Middle Eastern events in the late 1970's led to supply disturbances that helped push crude oil prices upward to nearly \$40 per barrel by early 1981. Although prices have subsided to an average of about \$29 per barrel, this is still nearly double the level in 1978.
- **Conservation:** As oil prices escalated, Americans turned to measures such as smaller cars, more insulation, conversions from oil to gas, electricity, or wood, supplemental use of solar energy, and more efficient furnaces and boilers to reduce fuel oil demand. Whether or not such activities have "peaked out," at least for the short term, will be a factor in determining future demand levels.
- **The economy:** While real Gross National Product (GNP) grew at an average rate of 1.4 percent per year from 1978 through 1982, the ratio of energy consumption to GNP fell by more than 10 percent.
- **Weather:** The 1982 weather was a temporary factor in the reduced petroleum demand. Measured in terms of population-weighted heating degree days, last winter was about 8 percent warmer than normal. Summer cooling requirements were lower as well, further reducing demand for electricity.

As a result of these factors, total demand for petroleum products had fallen to 15.3 MMBD by 1982, almost a 20-percent drop in 4 years. Net imports of crude oil and petroleum products had also dropped almost barrel-for-barrel with the drop in demand. Net imports in 1982 were only 4.3 MMBD, just over half of the 1978 level. Alaskan crude oil has been a major factor in reducing our dependence on foreign oils. Alaskan production topped 1 MMBD for the first time in 1978 and has averaged more than 1.6 MMBD for the last 3 years.

Data for the first half of 1983 show that both total petroleum demand and net imports have continued to drop, despite recent signs of economic recovery and stable crude oil prices. Petroleum demand averaged less than 15 million barrels per day to midyear, about 4 percent below demand during the first half of 1982. Net imports have again fallen almost barrel-for-barrel with the decrease in consumption, or about 500,000 barrels per day. Net imports of crude oil and petroleum products averaged 3.5 MMBD during the first 6 months of this year. The unusually mild winter of 1982-83 was a major, although temporary, factor in this continued decline.

Economic recovery, stable prices, and the return of normal weather patterns are expected to lead to increased petroleum consumption during the second half of 1983. Preliminary data indicate that this trend is already underway.

Net imports of crude oil (including imports for the Strategic Petroleum Reserve) are expected to increase from 2.6 million barrels per day last winter to 4.0 million barrels per day in the coming winter. This is about a 40-percent increase over last year's level, but is well below the peak annual average of 6.5 million barrels per day recorded during 1977. Petroleum products imports are

also expected to increase as a result of reduced primary stock withdrawals. Net imports of crude oil and petroleum products, which averaged almost 3.7 MMBD during the last winter, are expected to average about 5.3 MMBD this winter.

Distillate Fuel Oil Trends

Distillate consumption in 1982 declined for the fourth consecutive year from 1978's peak of 3.4 MMBD. The 1982 demand level was the lowest in more than a decade. Based on preliminary data, demand for distillate fuel oil, measured as product supplied, averaged 2.6 MMBD for the first 8 months of 1983, compared with 2.7 MMBD for the comparable 1982 period.

Both production and stock level trends for distillate have also been downward. Based on preliminary data, production averaged 2.8 MMBD for the first 8 months of 1983, down from the comparable 1982 rate of 2.7 MMBD. Stocks at the end of August were 142 million barrels, about 17 million barrels below the comparable 1982 level. Net imports of distillate fuel oils have virtually ceased since the United States began exporting modest amounts of distillate to Japan, Mexico, and Western Europe in 1982. Primary distillate fuel oil stocks this year were virtually the same as comparable 1982 levels, but considerably lower than the stock levels maintained just 4 or 5 years earlier.

Demand for distillate fuel oil, including home heating oil, diesel fuel, and distillate burned at electric utilities, is projected to increase about 17 percent during the winter of 1983-84 compared to last winter's levels. Demand for diesel fuel is also expected to increase about 50,000 barrels per day, due to increased economic activity and a continuation of the gradual penetration of diesel engines into the stock of motor vehicles.

Retail heating oil prices are expected to fall from an average of \$1.16 per gallon last winter to about \$1.07 per gallon during the upcoming winter. This represents about a 12-percent decline in real dollars. (This expectation is predicated on a continuation of current world oil prices, in nominal terms, through March 1984).

Supply Availability

The projected increase in demand is expected to be supplied primarily through increased refinery throughput. Refinery production of distillate is expected to average almost 3 MMBD during the upcoming winter, compared with 2.5 MMBD last winter.

Although stocks of distillate are low by recent historical standards, even in a colder-than-normal winter, assuming no major disruptions in the international flow of crude oil, demand can be met by a combination of increased production, stock withdrawals, and imports (see Figure 2). Refinery utilization rates during August averaged about 75 percent; thus, refinery capacity is readily available to increase production. Both crude oil

end distillate fuel oil are currently available in international markets, and imports could increase substantially without reaching the levels of the late 1970's.

Production was the principal supply component during the five heating seasons from 1978 to 1983; stock withdrawals ranked second. For all of 1982, refinery production was 98 percent of U.S. supply, stock withdrawals accounted for slightly more than 1 percent, and net imports accounted for less than 1 percent. In 1978, production accounted for 92 percent of supply, stock withdrawal for 3 percent, and net imports accounted for 5 percent of the product supplied.

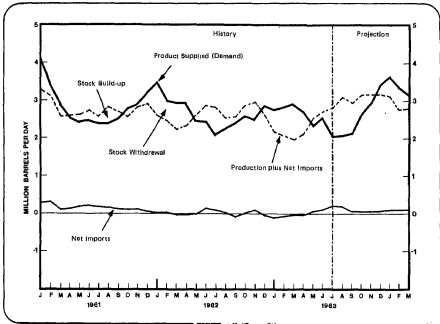
Primary stocks building generally begins during the summer months, when it is common to divert 15 to 20 percent of the distillate production to this purpose. Stocks build-up continues through the fall in anticipation of the December through February maximum con-

sumption period. This maximum consumption period is also the period when distillate imports usually peak. Maximum refinery production usually takes place during the October through March heating season.

Petroleum Administration for Defense (PAD) District I (East Coast) was the region of entry for 87 percent of U.S. imports of distillate fuel oil in 1982. However, the region received most of its 1982 supply from PAD District III. Because of the high winter levels of demand in PAD District I and its limited ability to produce distillate, stock levels in the region are higher and more variable than in other regions (see Table 1). Usually, when stock levels are at their highest, almost 50 percent of U.S. distillate inventories are located in PAD District I.

Other regions produce higher proportions of their local supply requirements. PAD District II (Midwest) produced 83 percent of its supply requirements in 1982.

Figure 2. Distillate Fuel Oil Supply and Demand: January 1981-March 1984



Source: Energy Information Administration, "Petroleum Supply Monthly" and "Short-Term Energy Outlook".

Table 1. Distillate Supply by Region, 1982
(Million Barrels)

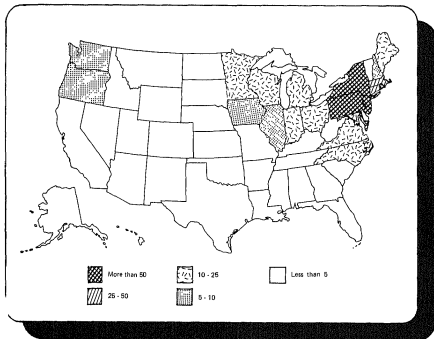
	Production	Imports	Stock Change	Net Receipts	Exports	Product Supplied
PADD I	105	30	7	215	1	356
PADD II	239	(s)	3	47	(s)	289
PADD III	447	2	1	-266	15	170
PADD IV	41	(s)	(s)	-4	(s)	37
PADD V	119	2	2	7	11	123
U.S. Total	951	34	13	(na)	27	975

(s) Less than 0.5 million barrels

(na) Not applicable.

Source: Energy Information Administration, *Petroleum Supply Annual*, 1982.

Figure 3. Distillate Fuel Oil Consumption in the Residential Sector, 1982
(Thousand Barrels per Day)



Source: Energy Information Administration, "Petroleum Supply Annual."

PAD District III (the Gulf Coast) produced almost three times its 1982 requirements. PAD Districts IV (Rocky Mountains) and V (West Coast) were self sufficient.

Consumption Trends

Transportation is the largest end use sector for distillate fuel oil. Between 1978 and 1982, use in this sector grew from about a third to over half of the distillate product supplied. Use for electricity generation has declined each year since 1977, and the trend continues downward. Industrial use was depressed throughout 1982 and accounted for only 10 percent of the distillate product supplied, but is expected to improve during 1983. Commercial and residential consumption combined has declined each year since 1977. Of all end use sectors, the residential sector, which accounted for nearly one-fifth of the 1982 consumption, shows the maximum seasonal variation. This variation results primarily from the use of distillate as a heat source during the colder months.

Petroleum Administration for Defense (PAD) District I (East Coast) maintained the largest share, 37 percent of the total U.S. demand for distillate fuels, during 1982. This area is the primary market for distillate heating oil for residential heating (see Figure 3). Last year PAD District I accounted for 75 percent of total U.S. distillate consumed for residential heating. Thirty-eight percent of the region's consumption was used for residential heating. The region's second largest use for distillate was transportation.

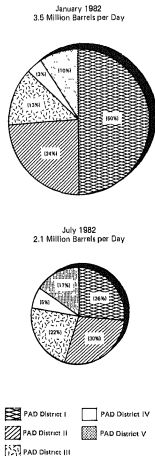
PAD District II, the second largest consuming region, accounted for 30 percent of U.S. distillate fuel oil consumed during 1982. Fifty-five percent of the region's consumption was used for transportation purposes, and only 13 percent was used for residential heating.

In January 1982, these two regions accounted for 74 percent of total U.S. demand for distillate. In July of 1982, however, they accounted for only 56 percent (see Figure 4). Customarily, PAD District I demand peaks sharply during the winter heating season while PAD District II demand shows less seasonality because of the greater importance of transportation and agricultural uses in that region. Nationwide, seasonal consumption variability is diminishing. In 1978, January consumption was 77 percent greater than July's. The gap has progressively narrowed, and this year January distillate consumption was only 21 percent greater than July's.

Residual Fuel Oil Trends

Residual fuel oil consumption peaked in 1977, at 3.1 MMBD. It has dropped each subsequent year, to 1.7 MMBD in 1982, its lowest level since 1965. A major part of this decline is explained by sizable price increases between 1978 and 1981. However, residual fuel oil demand continued to fall in 1982 and the first half of 1983, even as the price of residual fuel oil fell from 1981 levels, in both real and nominal terms. This continued decline in demand is largely attributed to greater reliance

Figure 4. Seasonal Variations in U.S. Distillate Oil Demand



Source: Energy Information Administration, "Petroleum Supply Monthly."

on coal, natural gas, hydropower, and nuclear facilities for electricity generation, the leading use for residual fuel oil.

This use accounted for 36 percent of all residual fuel oil deliveries in 1982. PAD District I (East Coast) accounted for over half of the total U.S. residual fuel oil delivered to electric utilities in 1982.

Other major consumers were industrial and oil companies, vessels and railroads. The recent weakness in the economy has affected all the uses of residual fuel oil. Although deliveries to most users declined each year between 1977 and 1982, the relative importance of different uses changed little. Vessels bunkering and railroads, the only category with any increase in consumption since 1977, grew from 129 million barrels in 1977 to 153 million barrels in 1982.

Deliveries of residual fuel oil for electric utility use totaled 227 million barrels in 1982, 98 million barrels less than the 1981 amount. Electric utilities accounted for 72 percent of the 1-year drop in total residual fuel oil use. The reductions in utility consumption in two states, California and Florida, of 27 and 22.5 million barrels, respectively, accounted for much of this change.

Demand Outlook

Recovery in demand is expected during the second half of 1983. A winter rebound to 1.8 million barrels per day is projected for the winter of 1983-84, a 12-percent increase over last winter's rate. Both economic recovery and normal weather are expected to contribute to the increase; however, an increase in electricity generation and a narrowing of the price differential between natural gas and residual fuel oil to electric utilities could result in a substantial increase in utilities' demand for residual fuel.

Sources of Supply

Residual fuel oil is supplied from production, net imports, and stock withdrawals. Production accounted for only about 62 percent of supply in 1982. Stocks supplied an additional 5 percent. Net imports accounted for 33 percent, the highest percentage for any finished petroleum product but less than the percentages experienced early in the 1970's. About 70 percent of 1982 imports came from Venezuela, Netherlands Antilles, the Virgin Islands, and Algeria. Following the relaxing of export regulations in 1981, exports have risen to record levels, reaching 229,000 barrels per day in the first half of 1983. Four destinations, (the Netherlands, Korea, Bahamas, and Singapore), accounted for about half of these exports. Current stock levels reflect the low demand for residual fuel oil. However, domestic production is projected to increase in response to rising demand and no difficulty is anticipated in meeting winter demand from traditional supply sources.

U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves

As of December 31, 1982, U.S. proved reserves were estimated to be 27.9 billion barrels of crude oil, 7.2 billion barrels of natural gas liquids (including lease condensate), and 202 trillion cubic feet of dry natural gas (excluding gas in underground storage). Crude oil reserves decreased 5.3 percent and natural gas reserves declined 0.1 percent while natural gas liquids reserves increased 2.2 percent (see Table 1).

The net decline of 1.6 billion barrels of crude oil reserves resulted in the lowest level of reserves since 1952. Proved crude oil reserves have decreased each year from the peak level of 39 billion barrels in 1970, when estimates for Prudhoe Bay field in Alaska were included for the first time. The average rate of yearly decline prevalent during the 1970's slowed during 1980 and 1981, but resumed in 1982. Total discoveries added 1.0 billion barrels of reserves during 1982. About three-fifths of the additions were from extensions to reservoirs found in prior years, and the remainder were from new field and new reservoir discoveries.

Proved reserves of dry natural gas decreased about 0.2 trillion cubic feet during 1982. Even so, reserves were about 1 percent above the recent minimum level in

1980. Of the 14.5 trillion cubic feet of gas reserves added during 1982, about three-fifths were from extensions to reservoirs found in prior years, and the remainder were new field and new reservoir discoveries.

Reserves of natural gas liquids increased for the third consecutive year to 7.2 billion barrels. This is the highest level since 1971. Although there were smaller reserve additions from discoveries (0.6 billion barrels) during 1982 than in the previous year, revisions to previous estimates and adjustments contributed to the net increase in reserves.

The estimates of proved reserves are based upon an analysis of data filed by 2,722 operators of oil and gas wells and by 971 operators of natural gas processing plants. The crude oil and natural gas proved reserves estimates are associated with sampling errors of less than 0.9 percent at a 95-percent confidence level.

The full report "U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report" will be released by the Energy Information Administration in October 1983.

Table 1. Estimated Total U.S. Proved Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas

	Proved Reserves at Start of Year	Net Revisions ^a	Total Discoveries	Production	Proved Reserves at End of Year ^a	Percent Change
Crude Oil (Million Barrels)						
1977	33,502 ^a	346	794	2,862	31,780	- 5.1
1978	31,780	1,756	827	3,008	31,355	- 1.3
1979	31,355	774	838	2,955	29,810	- 4.9
1980	29,810	2,108	862	2,975	29,805	(8)
1981	29,805	1,469	1,161	2,949	29,426	- 1.3
1982	29,426	351	1,031	2,950	27,858	- 5.3
Natural Gas Liquids (Million Barrels)^a						
1979	6,772 ^a	15	555	727	6,615	- 2.3
1980	6,615	257	587	731	6,728	+ 1.7
1981	6,728	317	784	741	7,068	+ 5.1
1982	7,068	278	598	721	7,221	+ 2.2
Natural Gas (Billion Cubic Feet)^a						
1977	213,278 ^a	- 1,825	14,603	18,483	207,413	- 2.8
1978	207,413	1,464	18,021	18,895	208,033	+ 0.3
1979	208,033	- 2,483	14,704	19,257	200,997	- 3.4
1980	200,997	2,250	14,473	18,689	199,021	- 1.0
1981	199,021	4,228	17,220	18,737	201,730	+ 1.4
1982	201,730	2,833	14,455	17,500	201,512	- 0.1

^aAlgebraic sum of revision increases, revision decreases, and net of corrections and adjustments.

^bProved reserves at end of year equal proved reserves at start of year, plus net revisions (including corrections and adjustments), plus total discoveries, minus production.

^cBased on following year data only.

^dIncluding lease condensate.

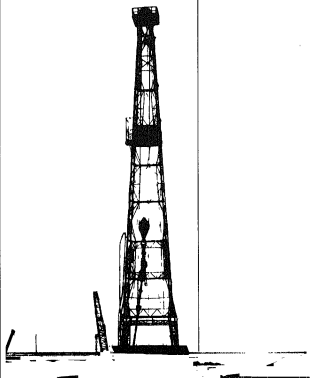
^eDry natural gas excluding gas in underground storage.

(g) Less than 0.05 percent.

Source: Energy Information Administration, "U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1982 Annual Report", "Advance Summary, August 31, 1983."

Note: Production figures are on oil reservoir and gas reservoir bases to maintain a balance in reserve accounting. These figures differ from those shown for production in the "Petroleum Supply Annual" and other EIA publications.

Summary Statistics



Crude Oil¹ and Petroleum Products Overview

		Field Production			Stock Withdrawal ²		Petroleum Products Supplied	Ending Stocks ³
		Total Domestic ⁴	Crude Oil	Natural Gas Plant Production	Crude Oil ⁵	Petroleum Products		Crude Oil ⁵ and Petroleum Products
								Millions of Barrels
Thousand Barrels per Day								
1973	AVERAGE	10,875	8,203	1,738	11	-146	17,308	1,008
1974	AVERAGE	10,498	8,774	1,888	-82	-117	18,863	^a 1,074
1975	AVERAGE	10,045	8,375	1,633	-17	-145	18,322	1,133
1976	AVERAGE	9,774	8,132	1,603	-39	96	17,461	1,112
1977	AVERAGE	9,913	8,245	1,618	-170	-378	18,431	1,312
1978	AVERAGE	10,328	8,707	1,567	-78	172	18,847	1,278
1979	AVERAGE	10,178	8,552	1,684	-146	-25	18,513	1,341
1980	AVERAGE	10,214	8,597	1,573	-86	-42	17,058	^a 1,382
1981	January	10,231	8,540	1,682	80	1,158	18,430	1,388
	February	10,284	8,604	1,683	-278	250	18,989	1,389
	March	10,272	8,613	1,624	-632	224	15,907	1,401
	April	10,195	8,567	1,599	-595	148	15,350	1,415
	May	10,160	8,501	1,593	-391	-374	15,353	1,439
	June	10,267	8,625	1,594	-135	406	16,096	1,430
	July	10,590	8,500	1,548	-360	91	15,982	1,439
	August	10,243	8,563	1,614	397	-999	15,293	1,457
	September	10,281	8,604	1,612	-285	-341	15,856	1,478
	October	10,225	8,593	1,568	-760	477	15,922	1,485
	November	10,269	8,586	1,630	-525	-233	15,593	1,501
	December	10,220	8,585	1,690	-170	745	16,598	1,484
	AVERAGE	10,230	8,572	1,609	-290	130	16,058	
1982	January	10,128	8,509	1,578	-401	1,298	16,124	1,466
	February	10,312	8,702	1,563	-242	1,230	18,001	1,428
	March	10,284	8,867	1,572	121	1,047	15,950	1,392
	April	10,188	8,591	1,542	-37	1,593	18,046	1,346
	May	10,244	8,693	1,518	29	-66	14,847	1,347
	June	10,212	8,646	1,511	40	-489	14,898	1,380
	July	10,229	8,656	1,513	-147	-925	14,821	1,393
	August	10,215	8,694	1,524	-440	-44	14,939	1,408
	September	10,279	8,701	1,518	283	-447	15,022	1,414
	October	10,288	8,701	1,530	-548	-47	14,858	1,432
	November	10,269	8,697	1,600	-398	-361	15,009	1,455
	December	10,276	8,698	1,628	128	688	15,487	^a 1,430
	AVERAGE	10,252	8,648	1,590	-136	263	15,296	
1983	January	10,356	8,694	1,668	-567	865	14,765	1,453
	February	10,288	8,680	1,555	-382	1,120	14,772	1,432
	March	10,258	8,677	1,544	56	1,765	15,484	1,376
	April	10,229	8,686	1,502	-438	431	14,779	1,378
	May	10,231	8,682	1,483	66	-759	14,250	1,397
	June	10,262	8,679	1,514	-183	-242	15,281	1,409
	July*	10,237	8,647	1,638	R 116	R -822	R 14,913	R 1,434
	August**	NA	8,653	NA	NA	-453	15,175	1,459
	AVERAGE	NA	8,684	NA	-217	219	14,828	

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Includes stocks at end of period.⁴ Includes natural gas plant production, other hydrocarbons and alcohol.⁵ Includes Strategic Petroleum Reserve.

* In 1981 and 1983, significant numbers of new respondents were added to bulk surveys as a result of extensive investigation during the previous years.

† On the reporting of stocks and stock withdrawals. Using the expanded data of year stocks would be: 1974-1,121, 1980-1,420 and 1982-1,462.

‡ 1975, 1981 and 1983 are calculated using new basis stock levels.

§ Components due to independent rounding.

R = Revised data.

1.

* 1981. See Explanatory Note 8.

† 50 United States and the District of Columbia.

‡ At the end of this section.

Crude Oil¹ and Petroleum Products Overview (continued)

		Imports			Exports			
		Total	Crude Oil ²	Petroleum Products	Total	Crude Oil	Petroleum Products	Net ³ Imports
Thousand Barrels per Day								
1973	AVERAGE	5,266	3,244	3,012	231	2	229	5,026
1974	AVERAGE	5,112	3,477	2,838	221	3	218	5,892
1975	AVERAGE	5,086	4,105	1,881	209	5	204	5,846
1976	AVERAGE	7,313	5,287	2,025	223	8	216	7,090
1977	AVERAGE	8,807	6,615	2,193	243	50	193	8,565
1978	AVERAGE	8,363	6,355	2,008	382	166	204	8,002
1979	AVERAGE	8,486	6,519	1,937	472	235	237	7,984
1980	AVERAGE	6,909	5,283	1,646	544	267	278	5,365
1981	January	6,927	4,932	1,865	568	339	219	6,270
	February	6,772	4,873	1,899	569	198	371	6,203
	March	6,028	4,221	1,507	596	210	376	5,442
	April	5,668	4,338	1,330	570	198	372	5,098
	May	5,775	4,207	1,489	586	312	263	5,180
	June	5,438	4,061	1,375	420	123	297	5,015
	July	5,816	4,296	1,621	571	257	314	5,245
	August	5,767	4,179	1,588	644	204	440	5,123
	September	6,358	4,740	1,624	619	194	325	5,845
	October	6,959	4,980	1,579	738	226	512	5,221
	November	5,741	4,046	1,695	701	276	423	5,041
	December	6,843	4,137	1,706	896	189	487	5,187
	AVERAGE	6,986	4,395	1,599	585	228	387	6,401
1982	January	6,332	3,693	1,539	829	238	591	4,503
	February	4,807	2,990	1,817	804	304	499	4,003
	March	4,484	2,674	1,610	882	321	561	3,802
	April	4,378	2,649	1,529	786	174	611	3,593
	May	4,811	3,309	1,503	803	282	542	4,008
	June	5,327	3,836	1,491	703	84	609	4,824
	July	5,890	4,248	1,642	741	229	512	5,149
	August	5,244	3,851	1,392	858	304	554	4,386
	September	5,414	3,538	1,778	791	184	608	4,624
	October	5,306	3,670	1,638	932	270	662	4,374
	November	5,744	3,852	1,882	786	262	524	4,960
	December	4,608	3,000	1,605	860	183	687	3,740
	AVERAGE	5,113	3,488	1,525	815	236	579	4,296
1983	January	4,372	2,938	1,434	873	117	856	3,399
	February	3,681	2,268	1,423	865	282	603	2,825
	March	3,629	2,232	1,398	801	174	627	2,829
	April	4,744	3,154	1,590	805	88	721	3,835
	May	4,898	3,234	1,864	848	290	558	4,048
	June	5,215	3,502	1,716	774	144	630	4,443
	July*	R 5,680	R 3,858	R 1,822	871	NA	425	5,119
	August**	5,677	4,129	1,747	NA	NA	NA	NA
	AVERAGE	4,776	3,175	1,500	NA	NA	NA	NA

¹ Includes lease condensate.

² Includes crude oil for storage in the Strategic Petroleum Reserve.

³ Net Imports = Imports minus Exports.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised date.

* See Explanatory Note 3.1.

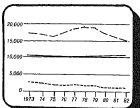
** Italics denote preliminary data. See Explanatory Note 8.

Geographic coverage: The 50 United States and the District of Columbia.

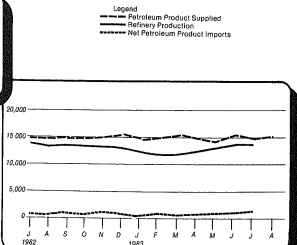
Sources: See "Sources" at the end of this section.

Petroleum Overview

(Thousand Barrels Per Day)



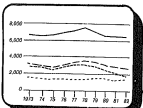
Annual



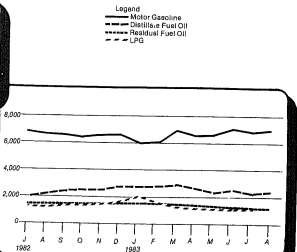
Monthly

Petroleum Products Supplied

(Thousand Barrels Per Day)



Annual

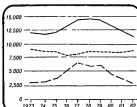


Monthly

¹ Liquefied Petroleum Gases

Crude Oil Supply and Disposition

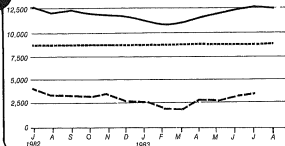
(Thousand Barrels Per Day)



Legend
 — Refinery Inputs
 - - - Domestic Crude Oil Production
 . . . Net Imports

Annual

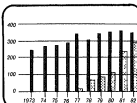
¹ Excludes SPR Imports



Monthly

Crude Oil Ending Stocks

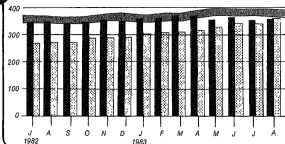
(Millions of Barrels)



Legend
 ■ Other Primary
 ▨ SPR
 ▤ Average Stock Range¹

Annual

¹ Level and width of Average Stock Ranges for crude oil is based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.



Monthly

Crude Oil¹ Supply and Disposition

		Supply							
		Field Production		Imports			Stock Withdrawals ²		Unaccounted for Crude Oil
		Total Domestic	Alaskan	Total	SPR ³	Other	SPR ³	Other	
Thousand Barrels per Day									
1973	AVERAGE	8,208	189	3,244		3,244		11	9
1974	AVERAGE	8,774	193	3,477		3,477		-82	-26
1975	AVERAGE	8,376	181	4,105		4,105		-17	17
1976	AVERAGE	8,132	173	5,287		5,287		-39	77
1977	AVERAGE	8,245	464	8,615	21	8,594	-20	-150	-9
1978	AVERAGE	8,707	1,228	6,358	182	8,196	-183	84	-67
1979	AVERAGE	8,552	1,401	9,519	87	6,452	-87	-81	-11
1980	AVERAGE	8,597	1,817	5,283	44	5,218	-45	-82	34
1981	January	8,540	1,608	4,832	108	4,826	-151	201	113
	February	8,804	1,618	4,873	80	4,793	-127	-150	-41
	March	8,813	1,618	4,521	140	4,382	-155	-477	154
	April	8,557	1,808	4,338	272	4,066	-444	-151	51
	May	8,501	1,880	4,287	388	3,901	-513	122	288
	June	8,629	1,832	4,081	318	3,743	-434	288	49
	July	8,800	1,605	4,286	175	4,121	-324	-36	147
	August	8,863	1,902	4,179	257	3,822	-372	769	16
	September	8,604	1,607	4,740	436	4,305	-486	201	-295
	October	8,563	1,596	4,380	453	3,927	-601	-259	186
	November	8,586	1,614	4,046	271	3,774	-259	-66	279
	December	8,685	1,623	4,137	166	3,971	-262	82	52
	AVERAGE	8,572	1,608	4,380	258	4,141	-338	46	83
1982	January	8,509	1,705	3,693	170	3,523	-189	-242	101
	February	8,702	1,707	2,980	159	2,830	-213	-28	158
	March	8,687	1,998	2,874	185	2,689	-235	357	2
	April	8,551	1,691	2,849	190	2,659	-233	196	231
	May	8,683	1,707	3,309	204	3,105	-176	205	111
	June	8,648	1,685	3,838	105	3,732	-106	144	133
	July	8,658	1,710	4,248	97	4,150	-87	-50	-20
	August	8,634	1,657	3,851	208	3,643	-208	-232	189
	September	8,701	1,705	3,636	139	3,497	-143	406	-210
	October	8,701	1,708	3,670	216	3,454	-216	-332	249
	November	8,697	1,676	3,862	180	3,683	-179	-219	-181
	December	8,598	1,682	3,000	124	2,877	-125	282	35
	AVERAGE	8,618	1,688	3,488	195	3,293	-174	38	71
1983	January	8,634	1,668	2,838	219	2,720	-219	-348	238
	February	8,880	1,725	2,268	187	2,071	-187	-185	423
	March	8,677	1,726	2,232	201	2,031	-184	-240	134
	April	8,686	1,710	3,154	205	2,949	-197	-241	191
	May	8,682	1,710	3,234	289	2,945	-289	362	148
	June	8,876	1,710	3,502	190	3,312	-188	25	480
	July*	8,647	1,706	R 3,888	R 274	R 3,694	R -264	R 382	-74
	August**	8,653	1,712	4,129	330	3,799	-344	-110	NA
	AVERAGE	8,584	1,712	3,175	239	2,936	-237	19	NA

¹ Includes lease condensate.² A negative number indicates an increase in stocks and a positive number indicates a decrease.³ Strategic Petroleum Reserve.

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

* See Explanatory Note 9.2.

** Itasca discloses preliminary data. See Explanatory Note 8.

Note: Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See "Sources" at the end of this section.

Crude Oil¹ Supply and Disposition (continued)

		Supply	Disposition				Ending Stocks ²		
		Crude Used Directly ³	Crude Losses	Refinery Inputs	Exports	Product Supplied ³	Total Crude Oil	SPR ⁴	Other Primary
		Thousand Barrels per Day					Millions of Barrels		
1973	AVERAGE	-19	13	12,431	2	NA	242		242
1974	AVERAGE	-15	13	12,133	3	NA	285		286
1975	AVERAGE	-17	13	12,442	6	NA	271		271
1976	AVERAGE	-18	15	13,416	8	NA	286		285
1977	AVERAGE	-14	16	14,502	60	NA	348	7	340
1978	AVERAGE	-14	16	14,739	158	NA	378	87	309
1979	AVERAGE	-13	16	14,648	235	NA	430	91	339
1980	AVERAGE	-13	15	13,481	287	NA	455	108	356
1981	January	-43	5	13,247	339	NA	488	112	374
	February	-55	3	12,902	188	NA	494	118	378
	March	-57	8	12,383	210	NA	514	121	393
	April	-59	3	12,031	185	NA	532	134	367
	May	-59	3	12,309	312	NA	544	160	384
	June	-58	7	12,416	123	NA	548	183	365
	July	-58	7	12,261	257	NA	559	173	380
	August	-58	5	12,308	204	NA	547	185	382
	September	-81	4	12,506	194	NA	555	199	368
	October	-83	3	12,057	228	NA	579	215	384
	November	-84	4	12,240	278	NA	580	223	386
	December	-83	4	12,349	189	NA	594	230	383
	AVERAGE	-68	5	12,470	229	NA			
1982	January	-83	3	11,698	238	NA	608	235	371
	February	-84	2	11,298	304	NA	613	241	372
	March	-83	5	11,276	321	NA	609	249	381
	April	-85	3	11,392	174	NA	610	258	355
	May	-82	3	11,808	282	NA	609	281	346
	June	-80	7	12,494	94	NA	608	284	344
	July	-80	3	12,443	229	NA	613	287	346
	August	-57	2	11,671	304	NA	595	274	353
	September	-58	4	12,145	184	NA	619	270	341
	October	-51	2	11,749	270	NA	638	285	351
	November	-51	1	11,724	282	NA	648	290	350
	December	-53	1	11,514	193	NA	644	294	350
	AVERAGE	-59	3	11,774	236	NA			
1983	January	NA	2	11,070	117	54	681	301	381
	February	NA	3	10,855	262	69	672	308	388
	March	NA	2	10,854	174	70	670	312	359
	April	NA	2	11,439	68	68	684	316	388
	May	NA	1	11,789	280	83	681	327	356
	June	NA	1	12,287	144	84	686	332	354
	July*	NA	2	12,347	145	85	683	341	362
	August**	NA	NA	12,251	NA	NA	702	351	350
	AVERAGE	NA	NA	11,693	NA	NA			

¹ Includes lease condensate.² Stocks are totals as of end of period.³ Beginning in January 1983, crude oil used directly as fuel is presented as product supplied for crude oil. Prior to January 1983 crude oil used directly was included with crude oil losses in this table and with product supplied for distillate and residual fuel cuts.⁴ Strategic Petroleum Reserve.⁵ In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years.

The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis) and of year stocks would be: 1974-265, 1980-483 (Total) and 375 (Other primary), and 1982-344 (Total) and 350 (Other Primary).

Totals may not equal sum of components due to independent rounding.

NA = Not available. R = Revised data.

* See Explanatory Note 9.2.

** Italic denotes preliminary data. See Explanatory Note 8.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Finished Motor Gasoline Supply and Disposition

		Supply			Disposition			Ending Stocks ¹		
		Total Production	Imports ²	Stock Withdrawals ³	Exports	Product Supplied			Total Motor Gasoline ⁴	Finished Motor Gasoline
						Total	Unleaded ⁵	Unleaded		
Thousand Barrels per Day								Percent of Total	Millions of Barrels	
1973	AVERAGE	6,636	134	9	4	8,874	NA	NA	208	
1974	AVERAGE	6,380	204	-24	2	6,537	NA	NA	⁶ 210	
1975	AVERAGE	6,520	184	-28	2	6,975	NA	NA	235	
1976	AVERAGE	6,841	131	10	3	6,976	NA	NA	231	
1977	AVERAGE	7,033	217	-72	2	7,177	1,976	27.5	258	
1978	AVERAGE	7,188	190	54	1	7,412	2,521	34.0	238	
1979	AVERAGE	6,852	181	2	(*)	7,034	2,788	39.8	237	
1980	AVERAGE	6,808	140	-88	1	6,579	3,057	46.6	⁶ 261	
1981	January	6,715	138	-421	(*)	8,431	3,141	48.8	278	227
	February	6,308	111	-118	1	6,301	3,086	49.1	284	230
	March	6,213	171	-81	(*)	6,303	3,097	49.1	285	232
	April	6,114	186	303	(*)	6,602	3,284	49.7	272	223
	May	6,122	150	344	1	6,615	3,115	47.1	259	213
	June	6,220	186	622	1	7,028	3,419	48.6	242	194
	July	6,405	151	288	(*)	6,823	3,424	50.2	228	188
	August	6,611	124	-85	3	6,837	3,344	50.4	233	189
	September	6,584	159	-70	2	6,562	3,338	50.1	237	191
	October	6,426	147	7	3	6,578	3,257	49.5	235	190
	November	6,564	148	-338	1	6,373	3,198	50.2	248	201
	December	6,586	187	-81	11	6,881	3,444	51.5	253	203
	AVERAGE	6,466	167	28	2	6,686	3,284	49.6		
1982	January	6,187	128	-318	18	5,981	3,087	51.5	261	213
	February	5,898	133	172	8	6,198	3,210	51.8	257	208
	March	5,894	183	354	44	6,466	3,358	51.9	247	198
	April	6,085	185	850	33	6,897	3,495	50.7	221	179
	May	6,318	182	177	23	6,665	3,415	51.3	214	173
	June	6,754	230	-134	14	6,836	3,565	52.2	219	177
	July	6,768	225	-178	24	6,790	3,577	52.7	228	183
	August	6,419	291	-81	16	6,814	3,526	53.3	227	185
	September	6,527	223	-188	22	6,531	3,404	52.1	234	191
	October	6,262	185	-42	15	6,381	3,351	52.4	234	192
	November	6,273	211	101	11	6,574	3,451	52.5	230	189
	December	6,542	178	-165	7	6,548	3,485	53.2	⁶ 235	⁶ 194
	AVERAGE	6,336	187	25	20	6,539	3,409	52.1		
1983	January	6,020	148	-188	(*)	5,881	3,352	56.0	251	208
	February	5,848	142	32	(*)	6,022	3,257	54.1	251	207
	March	5,897	205	786	23	6,843	3,620	52.8	224	184
	April	6,202	273	27	1	6,501	3,505	53.9	221	183
	May	6,386	284	-128	1	6,540	3,547	54.2	225	187
	June	6,846	285	118	22	7,006	3,798	54.2	223	183
	July*	R 6,704	R 287	R -210	18	R 6,773	3,752	55.4	R 231	190
	August**	6,559	238	181	NA	6,969	NA	NA	223	184
	AVERAGE	6,287	232	75	NA	6,586	NA	NA		

¹ Stocks are totals as of end of period.

² Beginning in 1981, excludes blending components.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ Includes motor gasoline blending components.

⁵ Includes gasoline.

⁶ In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), and of year stocks would be 1974-225, 1980-263, 1982-244 (Total) and 203 (Finished). Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

⁷ = Less than 500 barrels per day. NA = Not available. R = Revised data.

⁸ See Explanatory Note 9.3.

** Italics denote preliminary data. See Explanatory Note 9.

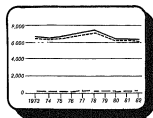
Note: Beginning in January 1981, survey forms were modified. Geographic coverage: The 50 United States and the District of Columbia. Source: See "Sources" at the end of this section.

Motor Gasoline Supply and Disposition

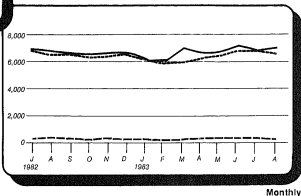
(Thousand Barrels Per Day)

Legend

- Product Supplied
- - - Finished Gasoline Production
- . - Finished Gasoline Imports



Annual



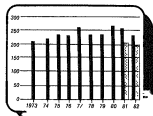
Monthly

Motor Gasoline Ending Stocks

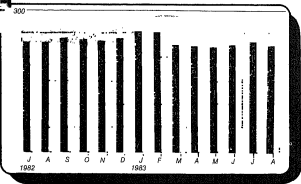
(Millions of Barrels)

Legend

- Total Motor Gasoline¹
- Finished Motor Gasoline
- ▨ Average Stock Range²



Annual



Monthly

¹ Includes finished motor gasoline blending components.

² Level and width of Average Stock Range for total motor gasoline based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

Distillate Fuel Oil Supply and Disposition

		Supply				Disposition		Ending Stocks ¹
		Total Production	Imports	Stock Withdrawal ²	Crude Used Directly ³	Exports	Product Supplied ³	
		Thousands Barrels per Day						
								Millions of Barrels
1973	AVERAGE	2,822	392	-115	2	9	3,092	198
1974	AVERAGE	2,868	288	-6	2	2	2,948	200
1975	AVERAGE	2,834	156	40	2	1	2,851	209
1976	AVERAGE	2,824	145	62	1	1	3,133	188
1977	AVERAGE	3,279	250	-178	1	1	3,352	260
1978	AVERAGE	3,187	173	93	1	3	3,432	218
1979	AVERAGE	3,153	193	-34	1	3	3,311	229
1980	AVERAGE	2,862	142	64	1	3	2,888	205
1981	January	2,966	273	838	11	(*)	4,108	179
	February	2,808	325	248	11	17	3,373	173
	March	2,484	147	264	8	(*)	2,904	184
	April	2,418	116	-8	10	3	2,532	185
	May	2,454	179	-232	10	(*)	2,411	172
	June	2,501	225	-270	8	(*)	2,484	180
	July	2,385	178	-204	10	2	2,378	186
	August	2,656	174	-480	8	(*)	2,388	200
	September	2,610	129	-235	10	1	2,513	207
	October	2,485	119	197	9	5	2,803	201
	November	2,716	124	36	11	6	2,890	200
	December	2,658	95	277	11	26	3,212	192
	AVERAGE	2,613	173	38	10	5	2,829	
1982	January	2,591	97	876	10	90	3,484	164
	February	2,427	132	605	11	90	3,085	147
	March	2,286	46	882	10	84	2,945	126
	April	2,358	56	812	13	64	2,978	108
	May	2,818	74	-183	10	75	2,444	114
	June	2,720	102	-335	10	55	2,462	124
	July	2,734	125	-789	11	24	2,058	148
	August	2,507	80	-336	10	40	2,218	159
	September	2,857	61	-65	12	139	2,507	161
	October	2,836	91	-289	8	86	2,581	170
	November	2,860	145	-514	8	24	2,475	186
	December	2,855	104	225	10	143	2,855	178
	AVERAGE	2,808	93	35	10	74	2,871	
1983	January	2,314	58	561	NA	173	2,760	188
	February	2,136	68	742	NA	105	2,632	147
	March	1,981	42	626	NA	58	2,900	119
	April	2,169	73	518	NA	47	2,713	103
	May	2,444	141	-183	NA	50	2,341	109
	June	2,545	175	-154	NA	40	2,526	114
	July*	R 2,600	R 259	R -556	NA	58	R 2,248	R 131
	August**	2,597	262	-367	NA	NA	2,426	142
	AVERAGE	2,352	134	175	NA	NA	2,590	

¹ Stocks are totals as of end of period.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Beginning in January 1983, product supplied for distillate fuel oil does not include crude oil used directly. See Explanatory Note 4.

⁴ In January 1976, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-224, 1980-205, and 1982-186. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

NA = Less than 500 barrels per day. NA = Not available. R = Revised data.

Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 8.4.

** Italics denote preliminary data. See Explanatory Note 8.

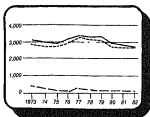
Note: Beginning in January 1981, survey forms were modified.

Geographic Coverage: The 50 United States and the District of Columbia.

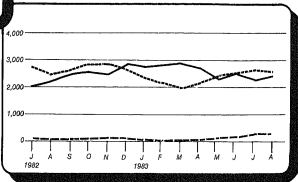
Source: See "Source" at the end of this section.

Distillate Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)

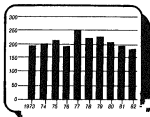


Legend
 — Product Supplied
 - - - Total Production
 . . . Imports

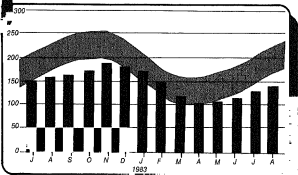


Distillate Fuel Oil Ending Stocks

(Millions of Barrels)



Legend
 [Shaded Area] Average Stock Range *



* Level and width of Average Stock Range for distillate fuel oil is based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

Residual Fuel Oil Supply and Disposition

	Supply				Disposition		Ending Stocks ¹
	Total Production	Imports	Stock Withdrawals ²	Crude Used Directly ³	Exports	Product Supplied ³	
	Thousand Barrels per Day						Millions of Barrels
1973 AVERAGE	871	1,853	5	17	23	2,822	53
1974 AVERAGE	1,070	1,587	-17	13	14	2,638	49
1975 AVERAGE	1,238	1,243	2	15	15	2,482	74
1976 AVERAGE	1,377	1,410	5	17	12	2,801	72
1977 AVERAGE	1,784	1,358	-48	13	6	3,071	90
1978 AVERAGE	1,687	1,386	-1	13	13	3,023	90
1979 AVERAGE	1,687	1,181	-15	12	9	2,828	94
1980 AVERAGE	1,580	939	10	12	33	2,508	92
1981 January	1,612	1,015	302	32	65	2,898	82
February	1,565	954	150	44	125	2,588	78
March	1,424	890	100	48	145	2,128	75
April	1,320	584	66	49	151	1,888	73
May	1,223	741	-170	49	25	1,817	78
June	1,232	540	291	49	78	2,037	89
July	1,174	830	2	48	82	1,971	88
August	1,231	819	-179	50	69	1,852	75
September	1,262	841	-178	51	126	1,882	80
October	1,238	786	8	54	202	1,884	80
November	1,227	880	-49	53	203	1,909	81
December	1,320	916	110	52	157	2,250	78
AVERAGE	1,321	800	37	48	118	2,098	
1982 January	1,335	831	301	53	235	2,185	89
February	1,186	956	363	53	213	2,344	58
March	1,123	912	12	53	197	1,930	68
April	1,186	788	150	52	234	1,923	54
May	1,128	749	-172	52	191	1,550	59
June	1,074	652	-57	50	217	1,501	61
July	1,023	667	56	49	239	1,550	59
August	965	551	203	47	235	1,531	53
September	1,008	872	-306	44	148	1,470	82
October	965	783	-57	43	234	1,480	64
November	980	837	-94	43	182	1,591	66
December	988	747	6	43	188	1,598	68
AVERAGE	1,079	776	32	48	209	1,718	
1983 January	835	891	243	NA	294	1,574	81
February	857	632	270	NA	191	1,588	53
March	833	886	220	NA	169	1,589	48
April	942	743	-10	NA	310	1,364	47
May	930	709	-138	NA	190	1,310	51
June	832	678	28	NA	219	1,317	50
July*	R 771	R 682	R -58	NA	90	R 1,308	R 52
August**	787	627	74	NA	NA	1,291	48
AVERAGE	857	881	77	NA	NA	1,407	

¹ Stocks are totals as of end of period.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ Beginning in January 1983, product supplied for residual fuel oil does not include crude oil used directly. See Explanatory Note 4.

⁴ In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new base), end of year stocks would be: 1974-75, 1980-81, and 1982-83. Stock withdrawals during 1975, 1981, and 1983 are calculated using new base stock levels.

Totals may not equal sum of components due to independent rounding.

NA = Not available, R = Revised data.

* See Explanatory Note 8A.

** Italics denote preliminary data. See Explanatory Note 8.

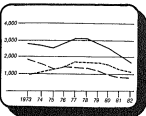
Note: Beginning in January 1981, survey forms were modified.

Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

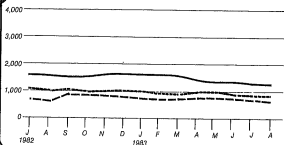
Residual Fuel Oil Supply and Disposition

(Thousand Barrels Per Day)



Annual

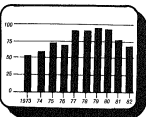
Legend
 — Product Supplied
 - - - Total Production
 . . . Imports



Monthly

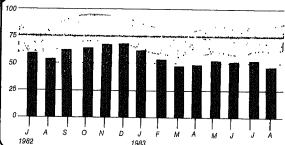
Residual Fuel Oil Ending Stocks

(Millions of Barrels)



Legend

■ Average Stock Range¹



¹ Level and width of Average Stock Range for residual fuel oil based on 3 years of data, January 1980-December 1982. See Explanatory Note 6.

Monthly 13

Liquefied Petroleum Gases Supply and Disposition

		Supply			Disposition			Ending Stocks ¹
		Total Production	Imports	Stock Withdrawals ²	Refinery Inputs	Exports	Product Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	1,809	132	-35	220	27	1,448	99
1974	AVERAGE	1,595	123	-38	220	25	1,408	³ 113
1975	AVERAGE	1,537	112	-35	248	28	1,333	125
1976	AVERAGE	1,535	130	24	280	25	1,404	118
1977	AVERAGE	1,598	181	-55	233	18	1,422	138
1978	AVERAGE	1,537	123	12	239	20	1,413	132
1979	AVERAGE	1,558	217	70	238	15	1,592	111
1980	AVERAGE	1,535	215	-27	233	21	1,489	³ 120
1981	January	1,517	306	383	382	21	1,813	117
	February	1,593	327	173	303	21	1,788	112
	March	1,551	280	-4	287	20	1,530	112
	April	1,586	214	-236	231	25	1,308	119
	May	1,587	188	-258	220	19	1,270	127
	June	1,567	206	-208	237	24	1,304	133
	July	1,507	213	-258	215	17	1,229	141
	August	1,582	195	-342	235	149	1,180	149
	September	1,522	198	-75	287	21	1,438	151
	October	1,593	267	72	320	78	1,558	149
	November	1,571	280	88	383	58	1,495	148
	December	1,488	255	379	428	80	1,824	135
	AVERAGE	1,571	244	-18	288	42	1,498	
1982	January	1,565	314	443	381	57	1,883	121
	February	1,498	291	243	327	51	1,521	114
	March	1,544	223	211	289	74	1,515	108
	April	1,508	188	98	257	77	1,459	105
	May	1,585	188	-71	234	43	1,403	107
	June	1,515	192	-68	282	108	1,254	109
	July	1,478	227	-13	253	67	1,388	110
	August	1,511	125	-45	254	31	1,278	111
	September	1,538	247	37	274	85	1,483	110
	October	1,517	194	87	306	81	1,421	107
	November	1,542	287	175	383	37	1,583	102
	December	1,580	258	258	395	55	1,842	³ 94
	AVERAGE	1,528	228	111	300	85	1,439	
1983	January	1,882	240	618	313	118	2,088	84
	February	1,580	305	84	237	70	1,536	81
	March	1,517	188	-51	188	127	1,316	83
	April	1,531	124	-107	188	118	1,232	85
	May	1,848	187	-328	207	84	1,084	88
	June	1,880	172	-333	205	59	1,180	108
	July*	1,871	191	-208	217	55	1,284	112
	AVERAGE	1,809	184	-48	224	91	1,401	

¹ Stocks are totals as of end of period.

² A negative number indicates an increase in stocks and a positive number indicates a decrease.

³ In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-113, 1980-128, and 1982-103. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

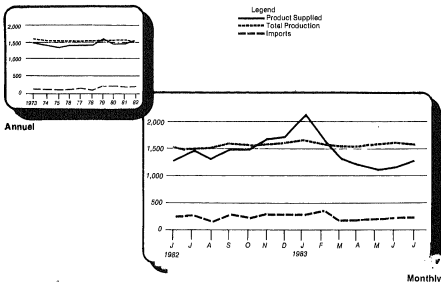
See Explanatory Note 9.5.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

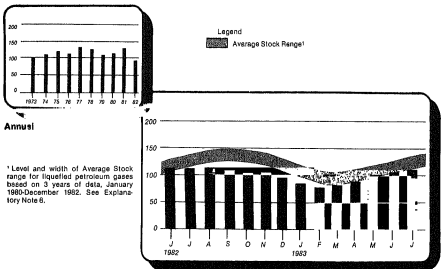
Liquefied Petroleum Gases Supply and Disposition

(Thousand Barrels Per Day)



Liquefied Petroleum Gases Ending Stocks

(Millions of Barrels)



¹ Level and width of Average Stock range for liquefied petroleum gases based on 3 years of data, January 1980-December 1982. See Explanatory Note 8.

Other Petroleum Products¹ Supply and Disposition

		Supply			Disposition			Ending Stocks ²
		Total Production	Imports	Stock Withdrawals ³	Refinery Inputs	Exports	Products Supplied	
		Thousand Barrels per Day						Millions of Barrels
1973	AVERAGE	3,883	552	-8	760	188	3,276	208
1974	AVERAGE	3,559	432	-28	885	174	3,123	* 216
1975	AVERAGE	3,424	277	-2	637	160	3,002	218
1976	AVERAGE	3,643	208	-6	684	175	3,145	226
1977	AVERAGE	3,912	295	-27	614	185	3,410	230
1978	AVERAGE	4,048	188	14	492	187	3,588	225
1979	AVERAGE	4,153	185	-37	362	209	3,749	238
1980	AVERAGE	3,955	210	-23	311	188	3,634	* 247
1981	January	3,821	152	80	851	132	3,081	286
	February	3,723	182	-200	538	208	2,958	302
	March	3,722	230	-55	642	210	3,043	304
	April	3,711	230	24	739	192	3,040	303
	May	3,882	220	-58	594	238	3,231	306
	June	3,825	218	-29	655	197	3,251	308
	July	3,852	146	284	781	212	3,282	297
	August	3,878	275	-33	675	219	3,225	296
	September	3,718	285	215	883	176	3,159	281
	October	3,503	241	183	710	227	3,000	285
	November	3,578	262	33	784	154	2,935	284
	December	3,543	243	71	805	223	2,829	282
	AVERAGE	3,739	228	48	723	199	3,088	
1982	January	3,171	289	-7	824	180	2,831	282
	February	3,403	305	-153	583	138	2,756	287
	March	3,486	243	-151	725	181	2,831	285
	April	3,406	308	73	796	204	2,790	280
	May	3,317	318	184	824	210	2,785	285
	June	3,547	315	123	812	215	2,854	281
	July	3,580	408	-1	856	187	3,023	281
	August	3,583	348	217	743	202	3,031	274
	September	3,533	375	105	749	213	3,051	271
	October	3,529	383	244	915	255	2,976	264
	November	3,489	423	-25	837	259	2,785	284
	December	3,324	315	358	855	275	2,842	* 253
	AVERAGE	3,453	334	80	787	211	2,889	
1983	January	3,252	287	-371	570	271	2,307	271
	February	3,270	287	-1	580	232	2,845	271
	March	3,400	285	-94	570	249	2,788	273
	April	3,383	377	3	586	247	2,801	273
	May	3,448	384	25	594	242	2,802	273
	June	3,574	427	99	715	282	3,197	270
	July*	3,703	393	108	767	209	3,237	258
	AVERAGE	3,442	348	-34	654	249	2,855	

¹ Includes natural gasoline and leopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil, and liquefied petroleum gases.

² Stocks are totals as of end of period.

³ A negative number indicates an increase in stocks and a positive number indicates a decrease.

⁴ In January 1975, 1981, and 1983, significant numbers of new respondents were added to bulk terminal and pipeline surveys as a result of extensive investigation during the previous years. The major impact is on the reporting of stocks and stock withdrawals. Using the expanded coverage (new basis), end of year stocks would be: 1974-220, 1980-249, and 1982-259. Stock withdrawals during 1975, 1981, and 1983 are calculated using new basis stock levels.

Totals may not equal sum of components due to independent rounding.

* See Explanatory Note 9.8.

Geographic Coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from OPEC Sources¹

	Algeria	Libya	Saudi Arabia	United Arab Emirates	Indonesia	Iran	Nigeria	Venezuela	Other OPEC ²	Total OPEC	Total Arab OPEC ³
Thousand Barrels per Day											
1973											
AVERAGE	138	184	488	71	213	223	488	1,135	108	2,983	918
1974											
AVERAGE	190	4	481	74	300	489	713	979	83	3,280	752
1975											
AVERAGE	282	232	715	117	390	280	782	702	122	3,601	1,383
1976											
AVERAGE	402	453	1,230	254	538	299	1,025	703	134	5,088	2,424
1977											
AVERAGE	558	723	1,380	386	541	535	1,143	680	287	5,183	3,185
1978											
AVERAGE	648	884	1,144	385	573	555	919	845	228	5,751	2,983
1979											
AVERAGE	638	858	1,358	281	420	304	1,080	890	212	5,837	3,058
1980											
AVERAGE	488	554	1,281	172	348	9	957	481	139	4,306	2,551
1981											
January	341	500	1,284	93	424	0	808	549	27	4,127	2,210
February	381	458	1,122	83	408	0	866	463	82	3,891	2,084
March	352	485	1,027	47	328	0	771	360	54	3,428	1,812
April	263	485	1,034	68	307	0	812	237	38	3,245	1,967
May	363	443	893	17	297	0	864	331	124	3,203	1,796
June	356	380	885	50	367	0	823	248	118	2,822	1,703
July	333	251	1,073	60	340	0	851	465	35	3,233	1,757
August	348	274	1,082	81	377	0	821	529	84	3,070	1,785
September	336	154	1,477	98	371	0	823	359	149	3,284	2,063
October	242	147	1,342	80	427	0	412	389	172	3,220	1,820
November	210	132	1,270	112	353	0	517	635	55	3,154	1,724
December	176	122	1,045	158	400	0	884	411	132	3,129	1,502
AVERAGE	311	318	1,128	81	368	0	820	466	90	3,323	1,846
1982											
January	254	161	877	111	289	0	683	378	128	2,889	1,403
February	139	92	693	89	244	0	584	355	102	2,287	1,054
March	91	37	555	158	200	0	522	398	81	2,051	850
April	85	0	511	122	215	0	427	428	85	1,671	740
May	179	0	601	116	295	0	222	422	54	1,830	887
June	115	0	583	94	215	72	537	381	110	2,080	820
July	158	0	600	108	327	68	910	358	85	2,885	805
August	181	0	489	133	271	27	574	299	133	2,107	818
September	179	0	432	57	191	21	477	518	88	1,943	877
October	243	7	494	81	242	108	313	504	100	2,084	810
November	247	14	489	47	283	34	479	528	115	2,235	797
December	155	0	237	12	285	88	462	389	73	1,880	421
AVERAGE	170	26	552	92	249	35	614	412	97	2,148	854
1983											
January	204	0	282	47	265	43	186	324	43	1,384	533
February	104	0	214	9	217	0	82	371	28	1,035	328
March	63	0	103	0	138	0	121	425	173	1,023	183
April	228	0	180	(*)	210	0	185	508	125	1,438	408
May	284	0	122	12	324	37	352	444	58	1,645	416
June	300	0	175	40	502	38	402	338	145	1,838	515
July	282	0	182	58	454	112	625	431	187	2,240	589
AVERAGE	210	0	179	24	332	33	288	408	111	1,534	427

¹ Excludes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

² Includes Ecuador, Gabon, Iraq, Kuwait, and Qatar.

³ Includes Algeria, Libya, Saudi Arabia, United Arab Emirates, Iraq, Kuwait, and Qatar.

(*) Less than 500 barrels.

Totals may not equal sum of components due to independent rounding.

Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Sources: See "Sources" at the end of this section.

Crude Oil and Petroleum Product Imports from Non-OPEC Sources¹

	Bahamas	Canada	Mexico	Netherlands Antilles	Trinidad and Tobago	United Kingdom	Puerto Rico ²	Virgin Islands ²	Other	Total
Thousand Barrels per Day										
1973 AVERAGE	174	1,325	16	585	255	15	99	329	465	3,253
1974 AVERAGE	184	1,070	8	511	251	8	90	391	340	2,932
1975 AVERAGE	182	846	71	332	242	14	90	406	360	2,454
1976 AVERAGE	118	599	67	275	274	31	89	422	363	2,247
1977 AVERAGE	171	517	179	211	259	126	105	468	550	2,614
1978 AVERAGE	180	487	319	225	253	180	94	420	494	2,813
1979 AVERAGE	147	539	439	231	190	202	92	431	549	2,919
1980 AVERAGE	79	455	533	225	175	176	89	399	491	2,809
1981										
January	39	543	401	198	150	233	89	494	552	2,701
February	84	546	437	227	163	271	46	451	626	2,881
March	74	472	458	227	93	263	45	370	571	2,603
April	66	412	416	198	139	402	40	365	380	2,423
May	122	385	522	213	105	368	56	344	474	2,573
June	51	353	538	196	124	357	67	262	525	2,513
July	77	382	384	212	175	553	50	206	541	2,583
August	89	378	489	255	123	592	68	184	539	2,698
September	111	423	706	163	169	528	72	265	881	3,100
October	83	449	669	161	121	351	60	303	582	2,739
November	83	547	625	168	106	253	76	254	421	2,557
December	70	501	587	148	125	280	73	387	583	2,714
AVERAGE	74	447	522	197	133	375	82	327	634	2,672
1982										
January	58	513	425	179	106	346	62	334	452	2,474
February	87	537	476	221	120	181	39	382	506	2,510
March	43	437	603	189	119	234	62	307	460	2,433
April	82	360	476	184	186	247	38	286	690	2,507
May	77	419	786	152	85	516	47	302	607	2,591
June	32	461	797	146	129	557	58	322	709	3,231
July	64	536	763	156	118	433	38	376	696	3,204
August	80	443	853	145	106	520	24	317	650	3,137
September	52	463	897	195	89	631	51	278	746	3,472
October	45	458	852	148	109	666	52	282	601	3,222
November	51	553	880	212	80	623	81	334	708	3,508
December	68	561	669	174	102	436	48	336	480	2,918
AVERAGE	68	482	886	175	112	456	50	316	627	2,968
1983										
January	86	538	849	216	73	315	40	299	588	2,968
February	92	592	722	179	81	193	80	192	554	2,655
March	86	488	760	167	76	240	43	182	593	2,608
April	107	452	981	216	85	421	20	183	701	3,306
May	135	601	944	153	106	463	42	235	651	3,252
June	137	578	831	181	120	424	48	252	712	3,281
July	69	633	849	191	103	369	37	364	836	3,450
AVERAGE	107	639	849	189	93	351	40	242	670	3,091

¹ Includes petroleum imported into the United States indirectly from OPEC countries, primarily from Caribbean and West European areas, as refined petroleum products which were refined from crude oil produced in OPEC countries.

² U.S. Possessions.

Totals may not equal sum of components due to independent rounding.

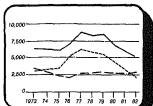
Note: Beginning in October 1977, Strategic Petroleum Reserve imports are included.

Geographic coverage: The 50 United States and the District of Columbia.

Source: See "Sources" at the end of this section.

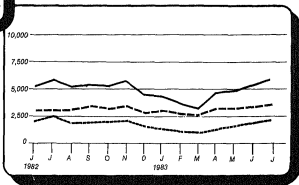
Crude Oil (Including SPR) and Petroleum Products Imports

(Thousand Barrels Per Day)

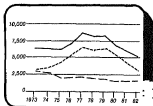


Annual

Legend
 — Total
 - - - OPEC
 . . . Non-OPEC

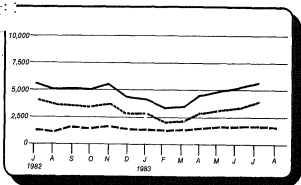


Monthly



Annual

Legend
 — Total
 - - - Crude Oil
 . . . Petroleum Products



Sources

1. 1973 through 1976: Bureau of Mines, U.S. Department of the Interior, *Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*, Mineral Industry Surveys.
2. 1977 through 1980: Energy Information Administration, U.S. Department of Energy, *Monthly Petroleum Statistics Report*, (unleaded gasoline category).
3. 1977 through 1980: Energy Information Administration, U.S. Department of Energy, *Petroleum Statement, Annual and PAD Districts Supply/Demand, Annual*, Energy Data Reports.
4. January 1981 through December 1982: Energy Information Administration, U.S. Department of Energy, *Petroleum Supply Annual*.
5. January 1983 through July 1983: Detailed statistics in appropriate issues of the *Petroleum Supply Monthly*. (See Explanatory Notes 9.1 through 9.6).
6. August 1983: Estimates based on EIA weekly data (except domestic crude oil production) (see Explanatory Note 1.1).
7. January 1983 through August 1983: Domestic crude oil production estimate based on historical statistics from State Conservation Agencies the U.S. Geological Survey. (See Explanatory Note 3).

Detailed Statistics



Table 1. U.S. Petroleum Balance, July 1983

	Current Month		Year-to-date	
	Thousand Barrels	Thousand Barrels per Day	Thousand Barrels	Thousand Barrels per Day
Crude Oil (Including Lease Condensate)				
Field Production				
(1) Alaska	\$ 52,649	1,706	\$ 362,934	1,712
(2) Lower 48 States	\$ 215,199	6,942	\$ 1,474,279	8,954
(3) Total U.S.	\$ 268,048	8,647	\$ 1,837,213	8,968
Net Imports				
(4) Imports (Gross Excluding SPR)	111,422	3,594	506,800	2,810
(5) SPR Imports	8,490	276	47,804	225
(6) Exports	4,484	145	36,460	172
(7) Imports (Net Including SPR)	115,416	3,723	607,144	2,864
Other Sources				
(8) SPR Withdrawal (+) or Addition (-)	-8,106	-284	-46,845	-221
(9) Other Stock Withdrawal (+) or Addition (-)	11,855	382	8,050	36
(10) Product Supplied and Lost	-2,098	-67	-14,044	-65
(11) Unaccounted for 1	-3,282	-74	45,805	216
(12) Total Other Sources	-701	-23	-7,034	-33
(13) Crude Input to Refineries	362,768	12,347	2,437,323	11,497
(13) = (3) + (7) + (12)				
Natural Gas Plant Liquids (NGPL)				
(14) Field Production	47,626	1,536	328,033	1,547
(15) Imports 2	826	27	2,537	12
(16) Stock Withdrawal (+) or Addition (-) 2	-563	-18	-3,754	-18
(17) Total NGPL Supply	47,891	1,545	326,818	1,542
Other Liquids				
Unfinished Oils and Gasoline Blending Components, Total				
(18) Stock Withdrawal (+) or Addition (-)	2,033	66	-909	-4
(19) Imports	6,347	209	51,841	245
(20) Other Hydrocarbons and Alcohol New Supply (Field Production)	1,666	54	11,297	54
(21) Refinery Processing Gain 1	13,570	438	99,541	470
(22) Crude Oil Product Supplied	2,015	65	13,686	65
(23) Total Other Liquids	27,630	891	175,558	826
(23) = (18) through (22)				
(24) Total Production of Products 3	458,287	14,783	2,629,695	13,666
(24) = (13) + (17) + (23)				
Net Imports of Refined Products 3				
(25) Imports (Gross)	47,313	1,520	280,469	1,323
(26) Exports	13,217	428	194,269	893
(27) Imports (Net)	34,096	1,100	146,200	690
(28) Total New Supply of Products	492,383	15,683	3,085,895	14,556
(28) = (24) + (27)				
(29) Refined Products Stock Withdrawal (+) or Addition (-) 3	-39,078	-670	71,275	398
(30) Total Petroleum Products Supplied for Domestic Use	462,304	14,613	3,157,170	14,892
(30) = (28) + (29)				
Ending Stocks, All Oils				
(31) Finished Motor Gasoline	206,866	6,773	1,384,104	6,529
(32) Distillate Fuel Oil	66,693	2,246	654,167	2,814
(33) Residual Fuel Oil	40,476	1,308	302,880	1,429
(34) Liquefied Petroleum Gases	36,616	1,284	287,105	1,401
(35) Other 4	100,334	3,257	605,149	2,884
(36) Crude Oil	2,015	65	13,288	65
(37) Total Product Supplied	462,304	14,613	3,157,171	14,892
(37) = (31) through (36)				
Ending Stocks, All Oils				
(38) Crude Oil and Lease Condensate (Excluding SPR)	341,994	—	341,994	—
(39) Strategic Petroleum Reserve (SPR)	340,872	—	340,872	—
(40) Unrefined Oils	107,102	—	107,102	—
(41) Gasoline Blending Components	41,826	—	41,826	—
(42) Natural Gasoline and Unfractionated Stream 5	15,322	—	15,322	—
(43) Finished Refined Products 3	587,581	—	587,581	—
(44) Total Stocks	1,434,200	—	1,434,200	—

1 A balancing item.

2 Includes isopentane, natural gasoline, unfractionated stream, and plant condensate only.

3 For products included see Explanatory Note 8.7.

4 Includes natural gasoline and isopentane, unfractionated stream, plant condensate, other liquids; and all finished petroleum products except finished motor gasoline, distillate fuel oil, residual fuel oil and liquefied petroleum gases.

5 Estimated.

6 Not Applicable.

Note: Totals may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes 1, 2 and 9.7.

Table 2. Supply and Disposition of Crude Oil and Petroleum Products, July 1983
(Thousand Barrels)

Commodity	Bunker						Throughput			
	Fleet Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unad. Addn. For Crude Oil	Cruise Liners	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	#									
Natural Gas Liquids and LBGS	47,205	11,074	6,351	-6,943	0	0	382,768	4,494	2,015	682,666
Natural Gasoline and Jet-A	8,435	0	792	-44	0	0	18,668	1,801	43,819	129,791
Unfractionated Stream	472	0	0	-472	0	0	0,098	0	2,897	7,619
Plum Condensate	7,759	11,674	124	-47	0	0	634	0	2	487
Liquid Petroleum Gases	27,819	5,845	0	-6,200	0	0	6,788	1,691	39,818	112,489
Petroleum Coke	1,125	6,679	689	-4,267	0	0	1,102	785	16,527	59,198
Burning	13,130	8,479	0	0	0	0	102	0	0	0
Butane-Propene Mixtures	6,144	1,006	1,145	-2,245	0	0	3,650	912	22,735	82,715
Ethane-Propane Mixtures	7,150	132	294	-152	0	0	279	0	169	1,388
Ethane-Propane Mixtures	7,785	0	1,129	0	0	0	601	0	9,695	12,964
Solvent	2,931	60	0	-273	0	0	2,623	0	18	11,064
Other Liquids	1,665	0,347	2,023	0	0	0	16,534	0	-4,489	148,721
Other Hydrocarbons and Alcohol	1,665	0	0	0	0	0	1,658	0	0	295
Methanol	0	0	7,438	3,016	0	0	12,977	0	-2,563	107,162
Mineral Oils	0	0	266	-44	0	0	1,344	0	-1,916	43,016
Avoidance Gasoline Blending Components	0	0	0	-44	0	0	0	0	0	511
Finished Petroleum Products	343	415,464	41,378	-32,089	0	0	0	11,528	421,061	470,062
Finished Motor Gasoline	33	207,775	20,746	-6,416	0	0	0	0	568	183,013
Gas Turbine Fuel Oil	19	115,259	5,020	-3,073	0	0	0	0	1,615	10,163
Finished Unleaded Motor Gasoline	104	835	0	-2,979	0	0	0	0	116,268	91,894
Finished Aviation Gasoline	0	6,631	0	-927	0	0	0	0	990	2,439
Naphtha-Type Jet Fuel	0	25,256	668	916	0	0	5,704	0	0	7,833
Kerosene	2	8,016	0	0	0	0	20,402	37	5,704	33,858
Diesel Fuel Oil	0	1,016	0	-1,723	0	0	0	0	0	0
Residual Fuel Oil	0	23,902	21,154	-17,763	0	0	0	0	1,695	10,554
Other Oils > 400 Deg. for Petro. Feed. Use	0	4,579	403	-357	0	0	0	0	6,905	13,154
Other Oils > 400 Deg. for Petro. Feed. Use	0	8,291	(*)	-135	0	0	0	0	4,479	2,295
Special Naphthalenes	138	1,671	445	-307	0	0	0	367	7,070	2,232
Laurelants	0	4,571	251	-172	0	0	0	39	2,195	3,454
Petroleum Waxes	0	13,946	0	1,335	0	0	0	577	4,358	11,622
Petroleum Cokes	0	15,111	297	2,158	0	0	0	0	0	0
Asphalt and Road Oil	0	15,017	0	0	0	0	0	5	17,661	22,913
Sulfur	57	1,749	295	-162	0	0	0	0	9,245	4,817
Miscellaneous Products	0	0	0	0	0	0	0	0	0	0
Total	317,341	426,538	176,399	-34,942	-2,262	71	412,468	17,711	482,304	1,434,209

¹ Unaccounted for crude oil is a balancing item.

(b) Less than 500 barrels.

—Estimated.

Note: Total may not equal sum of components due to independent rounding.

Note: Total may not equal sum of components due to independent rounding.
Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 3. Year-to-Date Supply and Disposition of Crude Oil and Petroleum Products, January - July 1983
(Thousand Barrels)

Commodity	Supply			Disposition						
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	E 1,837,213	0	643,504	-38,795	45,905	358	2,437,323	35,480	13,646	682,958
Natural Gas Liquids and Liquefied Petroleum Gases	325,534	66,775	43,625	-13,335	0	0	91,936	19,270	311,194	197,771
Natural Gasoline and Liquefied Petroleum Gases	51,835	0	938	-969	0	0	37,819	0	14,075	6,856
Unrefined Condensate	4,009	0	0	-3,840	0	0	169	0	0	7,979
Plant Condensate	3,942	0	1,500	955	0	0	6,482	0	14	487
Liquefied Petroleum Gases	295,726	66,775	41,069	-6,781	0	0	47,469	19,270	297,105	112,499
Ethane	53,261	3,118	10,306	841	0	0	563	30	66,753	5,330
Propane	83,704	46,722	9,691	-471	0	0	15,672	11,872	146,580	59,108
Butane	43,111	5,095	9,188	-8,053	0	0	27,757	7,368	17,218	22,735
Butane-Propene Mixtures	1,199	435	3,084	737	0	0	1,336	0	4,986	1,388
Ethane-Propene Mixtures	14,876	184	7,360	-1,652	0	0	15,152	0	60,266	12,004
Isobutane	13,816	0	0	-2,568	0	0	16,736	0	661	11,004
Other Liquids	11,307	0	51,400	-929	0	0	94,246	0	-31,916	148,731
Other Hydrocarbons and Alcohol	11,307	0	0	15	0	0	11,412	0	296	296
Unrefined Oil	0	0	45,337	-1,025	0	0	59,032	0	-15,000	107,102
Motor Gasoline Blending Components	0	0	6,504	500	0	0	23,702	0	-16,276	40,822
Aviation Gasoline Blending Components	0	0	1	-19	0	0	830	0	-540	511
Finished Petroleum Products	2,500	2,656,271	233,380	81,058	0	0	0	114,998	2,864,207	475,082
Finished Motor Gasoline	821	1,253,074	49,083	12,724	0	0	0	2,943	1,384,164	189,013
Finished Landed Motor Gasoline	356	951,801	27,403	4,236	0	0	0	2,543	981,805	97,919
Finished Unblended Motor Gasoline	165	725,273	21,684	6,480	0	0	0	0	752,910	91,094
Finished Aviation Gasoline	486	4,577	270	-114	0	0	0	0	5,159	2,428
Aviation-Type Jet Fuel	0	4,511	0	-114	0	0	0	0	4,511	0
Kerosene-Type Jet Fuel	0	170,311	5,111	-1,857	0	0	0	637	172,823	33,493
Kerosene	22	21,838	1,307	2,368	0	0	0	66	26,440	8,534
Residual Fuel Oil	10	491,072	34,552	54,542	0	0	0	15,990	554,187	181,037
Distillate Fuel Oil	0	194,720	167,067	10,361	0	0	0	44,258	392,880	61,958
Naphtas, < 400 Deg. for Petro. Feed. Use	0	29,285	2,610	-259	0	0	0	943	30,794	2,226
Other Oil, < 400 Deg. for Petro. Feed. Use	0	50,278	179	-62	0	0	0	3,023	53,402	2,232
Special Naphtas	465	11,489	3,840	20	0	0	0	470	15,543	3,434
Lubricants	0	29,586	1,587	1,569	0	0	0	3,384	29,387	11,632
Waxes	0	3,204	155	-101	0	0	0	141	3,117	887
Petroleum Coke	0	86,354	0	1,904	0	0	0	43,545	44,723	4,817
Asphalt and Road Oil	0	73,635	1,317	-5,844	0	0	0	225	68,073	22,913
Spill Gas	0	113,351	0	0	0	0	0	0	113,351	0
Miscellaneous Products	795	11,696	3,276	349	0	0	0	194	16,831	1,570
Total	2,176,644	2,723,048	978,451	27,817	45,905	358	2,633,935	170,729	3,197,171	1,434,200

1 Unaccounted for crude oil is a balancing item.

(*) Less than 500 barrels.

E - Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 1. Year-to-Date Daily Average Supply and Disposition of Crude Oil and Petroleum Products, January - July 1983
(Thousand Barrels per Day)

Commodity	Supply				Disposition				
	Filed Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	2,646	0	3,038	-183	216	2	11,497	172	65
Natural Gas Liquids and LEIGs	1,538	315	206	-64	0	0	0	0	1,468
Natural Gasoline and Isoparaffins	344	0	4	-4	0	0	434	91	0
Unfractionated Naphtha	19	0	0	-15	0	0	175	0	0
Plant Condensate	19	0	0	5	0	0	31	0	0
Liquefied Petroleum Gases	1,254	315	104	-46	0	0	254	0	1,401
Ethane	251	15	49	3	0	0	315	91	0
Propane	442	286	43	-3	0	0	4	0	691
Butane	200	132	12	-15	0	0	157	23	11
Butane-Propene Mixtures	6	3	19	-8	0	0	7	0	3
Ethane-Propene Mixtures	250	0	37	-8	0	0	0	0	268
Isobutane	53	1	0	-12	0	0	79	0	3
Other Liquids	54	0	245	-4	0	0	445	0	-151
Alcohols and Alcohols	54	0	0	0	0	0	0	0	0
Unrefined Oils	0	0	214	-9	0	0	274	0	-71
Motor Gasoline Blending Components	0	0	31	4	0	0	112	0	-77
Aviation Gasoline Blending Components	0	0	0	0	0	0	3	0	-3
Finished Petroleum Products	12	12,539	1,129	382	0	0	0	642	13,519
Finished Motor Gasoline	2	2,538	129	25	0	0	0	10	6,399
Finished Lead Gasoline	1	3,407	162	40	0	0	0	10	3,569
Finished Aviation Gasoline	2	22	1	-1	0	0	0	0	24
Neethane-Type Jet Fuel	0	213	0	-3	0	0	0	0	209
Kerosene-Type Jet Fuel	0	603	24	-9	0	0	0	0	616
Gas Turbine Fuel	0	103	0	0	0	0	0	0	103
Gas Turbine Fuel Oil	0	2,316	116	237	0	0	0	75	2,420
Residual Fuel Oil	0	671	669	77	0	0	0	209	1,429
Naphtha < 400 Deg. for Petro Feed Use	0	0	138	-1	0	0	0	0	145
Other Oils > 400 Deg. for Petro Feed Use	0	0	895	0	0	0	0	14	352
Special Naphtha	0	265	1	0	0	0	0	2	73
Lighter Naphtha	0	140	7	0	0	0	0	16	135
Waxes	0	15	1	0	0	0	0	0	15
Petroleum Coke	0	467	0	0	0	0	0	205	211
Asphalt and Road Oil	0	547	6	-27	0	0	0	0	536
Soil Gels	0	536	0	0	0	0	0	0	536
Miscellaneous Products	4	35	15	2	0	0	0	0	75
Total	10,267	12,845	4,615	131	216	2	12,275	695	14,862

1. Unaccounted for crude oil is a balancing item.

(n) Less than 500 barrels.

Notes: Total may not equal sum of components due to independent rounding. Sources and estimation procedures. See Explanatory Notes on Data Collection and Estimation.

Table 7. PAD District II, Supply and Disposition of Crude Oil and Petroleum Products, July 1983
(Thousand Barrels)

Commodity	Supply			Disposition							
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Net Receipts	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	5 32,159	0	10,469	396	37,830	1,501	12	88,386	346	0	78,034
Natural Gas Liquids and LRGs	8,911	2,306	4,753	-1,845	0	2,995	0	4,098	742	12,511	41,219
Liquefied Petroleum Gases	8,058	2,306	4,753	-1,895	0	1,631	0	2,423	742	11,519	37,459
Other Products ²	843	0	0	50	0	1,364	0	1,665	0	592	3,793
Other Liquids	376	0	862	1,446	0	1,230	0	2,810	0	1,043	25,177
Other Hydrocarbons and Alcohol	376	0	0	23	0	0	0	299	0	0	84
Motor Gasoline	0	0	872	63	0	0	0	0	0	75	17,561
Motor Gasoline Blending Components	0	0	125	736	0	1,239	0	1,703	0	317	7,553
Aviation Gasoline Blending Components	0	0	0	9	0	0	0	9	0	0	209
Finished Petroleum Products	6	96,623	1,259	-4,105	0	21,573	0	0	259	115,076	121,883
Finished Motor Gasoline	0	96,729	195	-1,802	0	12,995	0	0	107	99,220	57,042
Finished Landed Motor Gasoline	0	27,932	194	-1,355	0	7,251	0	0	107	33,785	39,804
Finished Landed Motor Gasoline Blending Components	0	25,436	1	-1,150	0	5,936	0	0	0	8,448	26,958
Finished Aviation Gasoline	0	132	0	-165	0	230	0	0	0	217	730
Finished Aviation Gasoline Blending Components	0	1,257	0	-483	0	221	0	0	0	765	2,322
Naphtha-Type Jet Fuel	0	3,460	0	557	0	1,293	0	0	0	5,330	7,891
Kerosene-Type Jet Fuel	0	181	0	47	0	38	0	0	0	366	1,745
Kerosene	0	18,006	395	-4,076	0	6,260	0	0	0	21,485	33,659
Distillate Fuel Oil	0	1,922	545	-3	0	-312	0	0	0	2,162	3,744
Residual Fuel Oil	0	872	37	3	0	25	0	0	64	973	252
Naphtha and Other Oils for Petroleum	0	461	64	117	0	130	0	0	0	772	611
Special Naphthas	0	744	8	-151	0	373	0	0	15	519	2,246
Lubricants	0	0	0	0	0	0	0	0	0	0	0
Waxes	0	45	2	-3	0	0	0	0	0	43	54
Petroleum Coke	0	3,202	0	265	0	0	0	0	0	91	1,212
Asphalt and Road Oil	0	4,439	5	1,208	0	471	0	0	0	2	6,421
SBF Gas	0	3,335	0	0	0	0	0	0	0	0	3,335
Other Miscellaneous Products	6	175	7	-20	0	-151	0	0	0	17	175
Total	41,462	98,929	23,223	-3,090	37,830	27,739	12	95,244	1,368	128,629	268,323

¹ Unaccounted for crude oil is a balancing item.

² Includes natural gasoline, expenters, unfractionated stream, and plant condensate.

(p) Less than 500 barrels.

E = Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation

Table 8. PAD District III, Supply and Disposition of Crude Oil and Petroleum Products, July 1983
(Thousand Barrels)

Commodity	Supply			Disposition						
	Field Production	Refinery Production	Imports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Crude Losses	Refinery Inputs	Exports	Products Supplied	Ending Stocks
Crude Oil (including lease condensate)	128,371	0	64,858	-5,404	-36,482	9	174,459	0	22	494,210
Natural Gas Liquids and Lubricants	34,252	5,907	284	-4,567	0	0	8,398	792	23,349	77,503
Liquefied Petroleum Gases	27,469	5,007	224	-4,014	0	0	3,550	702	22,225	65,959
Other Products	6,763	0	0	-503	0	0	4,548	0	1,020	10,710
Other Liquids	591	0	3,569	-543	0	0	9,278	0	-7,486	58,100
Other Hydrocarbons and Alcohol	591	0	0	-1	0	0	560	0	-4,737	49,429
Unrefined Oil	0	0	3,365	3,076	0	0	9,178	0	-2,741	18,319
Motor Gasoline Blending Components	0	0	138	-1,561	0	0	79	0	252	0
Aviation Gasoline Blending Components	0	0	0	-37	0	0	-59	0	12	0
Finished Petroleum Products	283	190,969	3,521	-694	0	0	4,460	96,724	134,630	324,630
Finished Motor Gasoline	0	92,350	0	1,155	0	0	0	424	30,816	46,770
Finished Landed Motor Gasoline	0	38,618	0	1,447	0	0	0	424	13,659	22,673
Finished Unleaded Motor Gasoline	0	53,532	0	-332	0	0	0	0	17,197	84,007
Finished Aviation Gasoline	104	9,847	0	32	0	0	0	0	1,125	1,125
Naphtala-Type Jet Fuel	0	2,847	0	21	0	0	0	0	1,583	2,704
Kerosene-Type Jet Fuel	0	12,236	116	1,249	0	0	0	0	2,979	10,375
Kerosene	2	2,278	240	-405	0	0	0	0	1,863	2,704
Distillate Fuel Oil	1	37,448	459	-2,722	0	0	0	391	15,412	32,490
Residual Fuel Oil	0	10,061	2,557	-253	0	0	0	844	13,706	13,706
Heating Oil	0	0	0	0	0	0	0	0	0	0
Other Oil for Petrochem.	0	0	0	0	0	0	0	0	0	0
Feedstock	0	10,837	263	-445	0	0	0	307	10,311	3,484
Special Naphtalas	126	1,258	277	-211	0	0	0	35	1,044	1,642
Lubricants	0	2,751	0	480	0	0	0	0	369	1,661
Waxes	0	388	0	-77	0	0	0	0	20	356
Petroleum Coke	0	4,242	0	10	0	0	0	0	2,477	2,660
Other Solid and Liquid Oil	0	3,942	0	240	0	0	0	0	0	0
Solid Carbon	0	7,738	0	0	0	0	0	0	0	0
Miscellaneous Products	60	1,165	17	-10	0	0	0	0	7,758	3,391
Total	163,497	196,895	71,376	-11,208	-36,482	9	192,635	5,760	198,529	764,615

1 Unaccounted for crude oil is a balancing item.

2 Includes refinery gas, condensate, unrefined stream, and plant condensate.

3 Less than 100 barrels.

4 - Estimated.

Notes: Total may not equal sum of components due to independent rounding.

Source: and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 9. PAD District IV, Supply and Disposition of Crude Oil and Petroleum Products, July 1983
(Thousand Barrels)

Commodity	Field Production	Refinery Production	Supply			Receipts	Disposition			Ending Stocks
			Imports	Stocks Minus (less) or Plus (+)	Unaccounted For Crude Oil		Crude Losses	Refinery Inputs	Exports	Products Supplied
Crude Oil (including lease condensate)	5 17,571	0	1,481	1,514	-6,386	0	0	14,375	0	5
Natural Gas Liquids and LPGA	2,220	144	327	-15	0	-1,208	0	431	0	1,657
Unleaded Petroleum Gasoline	766	144	238	-6	0	-196	0	312	0	434
Other Petroleum¹	1,454	0	89	-9	0	-1,012	0	119	0	403
Other Liquids	0	0	87	416	0	0	0	-366	0	869
Other Hydrocarbons and Alcohol	0	0	0	0	0	0	0	0	0	0
Unfinished Oil	0	0	87	103	0	0	0	-820	0	710
Motor Gasoline Blending Components	0	0	0	312	0	0	0	134	0	1,754
Aviation Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0
Finished Petroleum Products	10	14,861	145	937	0	-189	0	0	5	15,559
Finished Motor Gasoline	9	7,352	73	-31	0	-84	0	0	0	7,538
Finished Unleaded Motor Gasoline	8	4,611	70	-5	0	-189	0	0	(*)	4,499
Finished Leaded Motor Gasoline	1	2,771	3	-36	0	95	0	0	0	2,843
Finished Aviation Gasoline	0	0	0	0	0	0	0	0	0	0
Jet Fuel	0	650	0	-9	0	-74	0	0	0	52
Kerosene Type Jet Fuel	0	696	0	35	0	-71	0	0	0	39
Kerosene	0	40	0	0	0	389	0	0	0	1,120
Distillate Fuel Oil	0	3,821	67	-240	0	0	0	0	1	36
Residual Fuel Oil	0	359	5	-60	0	-437	0	0	0	3,311
Asphalt and Other Oil for Petrochem.	0	0	0	0	0	0	0	0	0	304
Feedstock	0	0	0	1	0	0	0	0	(*)	1
Special Naphtha	0	0	(*)	-7	0	0	0	0	(*)	2
Motor Oil	0	26	(*)	0	0	0	0	0	0	32
Waxes	0	8	0	3	0	0	0	0	0	11
Petroleum Coke	0	322	0	312	0	0	0	0	0	1,234
Asphalt and Road Oil	0	842	0	448	0	0	0	0	0	140
Sol Oil	0	629	0	0	0	0	0	0	(*)	1,836
Miscellaneous Products	1	76	(*)	-24	0	0	0	0	0	529
Total	15,801	14,805	2,040	2,852	-6,386	-1,397	0	14,440	5	17,469
Total										59,497

¹ Unaccounted for crude oil is a balancing item.

² Includes natural gasoline, isopentane, unrefined condensate, and plant condensate.

(*) Less than 500 barrels.

— Estimated.

Note: Total may not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

Table 10. PAD District V, Supply and Disposition of Crude Oil and Petroleum Products, July 1983
(Thousand Barrels)

Commodity	Supply				Disposition			
	Field Production	Refinery Production	Imports or Exports	Stock Withdrawal (+) or Addition (-)	Unaccounted For Crude Oil	Net Nonstock	Crude Losses	Refinery Inputs
Crude Oil (Including Lease Condensate)								
Total	87,402	0	8,795	7,333	-5,328	-27,184	49	70,020
Natural Gas Liquids and LPGs	1,006	1,010	620	-350	0	0	0	708
Liquefied Petroleum Gases	810	1,810	423	-346	0	0	0	438
Other Products	456	0	357	-4	0	0	0	270
Other Liquids								
Other Hydrocarbons and Alcohol	582	0	1,152	108	0	0	0	580
Unrefined Oils	0	0	0	1	0	0	0	583
Motor Gasoline Blending Components	0	0	720	258	0	0	0	335
Aviation Gasoline Blending Components	0	0	354	-153	0	0	0	-342
Other Components	0	0	0	4	0	0	0	4
Finished Petroleum Products								
Finished Motor Gasoline	0	74,251	1,367	-4,602	0	3,728	0	0
Finished Liquefied Motor Gasoline	0	33,151	1,150	-3,110	0	2,547	0	0
Finished Unrefined Motor Gasoline	0	14,653	530	-1,201	0	1,208	0	0
Finished Aviation Gasoline	0	18,552	52	-1,953	0	841	0	0
Aviation-Type Jet Fuel	0	270	0	64	0	0	0	0
Kerosene	0	1,374	0	-73	0	360	0	0
Distillate Fuel Oil	0	7,731	144	-696	0	324	0	0
Residual Fuel Oil	0	11,134	76	-4	0	0	0	0
Other Petroleum Products	0	11,537	76	-420	0	506	0	0
Asphalt and Other Oils for Petrolium	0	8,748	324	-152	0	-8	0	0
Special Naphthas	0	888	0	-35	0	0	0	0
Leuconates	0	100	16	-40	0	0	0	0
Waxes	0	417	115	-127	0	191	0	0
Petroleum Coke	0	460	0	-1	0	0	0	0
Asphalt and Road Oil	0	2,517	7	-35	0	0	0	0
Bit Oils	0	4,055	0	-35	0	0	0	0
Nonferrous Products	0	200	8	-70	0	0	0	0
Total	89,039	75,811	13,614	2,280	-5,328	-16,458	49	72,108
								10,035
								74,083
								173,710

1 Unaccounted for crude oil is a balancing item.

2 Includes natural gasoline, kerosene, unrefined stream, and plant condensate.

3 Less than 500 barrels.

4 Less than 500 barrels.

5 Net Total is not equal sum of components due to independent rounding.

Sources and estimation procedures: See Explanatory Notes on Data Collection and Estimation.

—Continued

Table 11. Production of Crude Oil (Including Lease Condensate) by PAD District and State, for the Most Current Available Month, May 1985 (Thousands of Barrels)

PAD District and State		Production		PAD District and State		Production	
		Total	Daily Average			Total	Daily Average
PAD District I				PAD District IV			
Florida	1,683			Utah	2,337		
New York	5,711			Montana	E 2,558		
Pennsylvania	E 264			Wyoming	E 2,446		
Virginia	E 4			Adjustment 2	E 9,607		
West Virginia	311			Adjustment 3	577		
Adjustment 2	90			Total PAD District IV	E 17,593		
Total PAD District I	E 2,523						
PAD District II				PAD District V			
Illinois	2,480			Alaska	2,130		
Indiana	427			North Dakota	40,401		
Kansas	5,948			Adjustment for Alaska ¹	1,485		
Kentucky	669			Total Alaska	55,015		
Michigan	E 2,098			Arizona	17		
Missouri	E 17			California	8,480		
Nebraska	447			Central Coastal	21,515		
North Dakota	1,234			North	16		
Ohio	E 40			South	215		
Oklahoma	E 12,747			Total California	34,736		
South Dakota	101			Nevada	50		
Tennessee	98			Adjustment for Alaska, California, and Nevada	84		
Adjustment 2	-131			Total PAD District V	87,825		
Total PAD District II	E 31,784			United States Total	E 265,151		
PAD District III				United States Total			
Alabama	1,848						
Arkansas	E 1,901						
Louisiana	E 97,541						
Mississippi	2,817						
North Carolina	E 40,359						
Mississippi	2,680						
New Mexico	680						
Northwestern	5,190						
Southwestern	102						
Total New Mexico	6,270						
Texas	2,085						
TRRC District 01	3,454						
TRRC District 02	E 11,008						
TRRC District 03	2,283						
TRRC District 04	114						
TRRC District 05	3,545						
TRRC District 06	2,885						
TRRC District 07C	2,830						
TRRC District 08	10,232						
TRRC District 08A	15,193						
TRRC District 09	3,225						
TRRC District 10	1,815						
East Texas	4,413						
Total Texas	E 70,796						
Adjustment 2	85						
Total PAD District III	E 120,325						

¹ Includes the following offshore production (Thousands of Barrels):

California: Federal: 2,605, State: 2,703;
Louisiana: Federal: E 24,900, State: 2,157;
Texas: Federal: E 1,794, State: 167;
U.S. Total: E 30,265;
2 U.S. Total: E 30,265;
level sums of the State data with the independently estimated U.S. and Alaskan figures shown in the Summary Statistics portion of this issue and with the PADCO level figures published in a previous issue. Final data at the State, PAD District and Field levels are published without adjustments in the Petroleum Supply Annual.
Source: See Explanatory Notes on Data Collection and Estimation
E = Estimated.
- Data not available.

Table 13. Refinery Input of Crude Oil and Petroleum Products by PAD District, July 1983
(Thousand Barrels, Except Where Noted)

Commodity	PAD District I			PAD District II			PAD District III			PAD District IV			United States				
	East Coast	Chain Coast	Total	Appalachian	Ind. Ill., Ky.	Wisc., Mo.	Okla., Kans., Mo.	Texas Gulf Coast	Texas Gulf Coast	La. Gulf Coast	No. La. Ark.	New Mexico		Total			
Crude Oil (including lease condensate)	32,489	2,277	34,746	1,104	58,318	8,685	20,249	88,266	15,407	92,872	59,261	5,454	2,425	174,459	14,375	70,820	382,786
Natural Gas Liquids																	
Natural Gasoline and Isopentane	28	0	28	0	565	0	905	1,533	1,328	2,294	338	48	86	4,164	81	270	5,098
Unfractionated Steam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plant Condensate	27	8	35	62	1,483	289	562	2,403	478	1,346	1,563	125	56	3,550	312	438	6,758
Liquid Petroleum Gases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butane	0	8	8	22	656	218	208	1,105	102	1,054	947	15	0	2,117	12	82	3,052
Butane-Propene Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ethane-Propene Mixtures	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Isobutane	27	0	27	40	788	71	260	1,259	376	225	384	110	31	1,125	62	149	2,623
Other Liquids	57	0	57	0	399	0	0	399	30	261	204	0	5	590	0	563	1,639
Other Hydrocarbons and Alcohol	57	0	57	0	399	0	0	399	30	261	204	0	5	590	0	563	1,639
Unfinished Oil (net)	3,265	-30	3,235	-15	-205	34	805	619	227	6,716	1,591	112	142	9,178	-820	335	12,977
Motor Gasoline Blending Components (net)	247	13	310	2	878	-37	940	1,763	-868	76	678	-15	8	79	154	-342	1,984
Aviation Gasoline Blending Components (net)	0	0	0	0	42	0	-33	9	-4	0	-65	0	0	-69	0	4	-58
Total Input to Refineries	36,273	2,268	38,541	1,143	61,564	9,064	23,428	95,244	15,158	104,142	63,249	5,882	2,704	182,635	14,440	73,108	412,908
Crude Oil Distillation																	
Gross Input (daily average)	1,281	73	1,354	38	1,905	291	665	2,899	612	3,104	1,895	185	79	5,777	466	2,401	12,936
Operating Capacity (daily average)	1,473	174	1,647	86	2,351	266	854	3,393	612	4,042	2,873	285	107	7,032	581	3,119	16,724
Operating Ratio (percent)	73.4	42.2	70.1	57.0	81.0	98.6	77.3	61.3	63.7	76.8	65.9	62.8	74.2	72.8	62.1	73.8	74.9
Crude Oil Qualities																	
Surfactant, Weighted Average (percent)	1.01	34	37	86	50	1.58	79	32	89	87	83	1.54	76	82	93	89	89
API Gravity, Weighted Average	31.28	41.63	31.37	34.96	36.12	30.80	37.53	35.91	37.75	35.93	34.07	31.49	39.98	38.17	35.17	36.50	33.35
Operating Capacity (daily average)	1,473	174	1,647	86	2,351	266	854	3,393	612	4,042	2,873	285	107	7,032	581	3,119	16,824
Operating Ratio (percent)	1,281	73	1,354	38	1,905	291	665	2,899	612	3,104	1,895	185	79	5,777	466	2,401	12,936
Idle Capacity (daily average)	207	64	271	0	177	0	140	317	29	688	613	62	0	1,242	26	281	2,627

1. Represents gross input divided by operable capacity.
Note: Total may not equal sum of individual items due to independent rounding.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 15. Percent Refinery Yield of Petroleum Products by PAD District.¹ July 1983[illegible]

1. Based on crude oil input and net returns of unfurnished oils.

2. Based on total finished motor gasoline output plus net output of motor gasoline blending components.

main input of natural gas plant liquids, other hydrocarbons and alcohol

3. Based on finished aviation gasoline output plus net output of aviation gasoline blending components

4. Represents the difference between Input and Production.

Note. Totals may not equal sum of components due to rounding.

Note: See Explanatory Note on negatives production.

Table 16. Imports of Crude Oil and Petroleum Products by PAD District, July 1983
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts				
	I	II	III	IV	Total
Crude Oil (including lease condensate) 1, 2	27,592	15,402	64,256	1,481	108,731
Natural Gas Liquids	566	4,732	254	327	5,781
Natural Gasoline and Isooctane	305	0	0	0	305
Liquor Condensate	261	4,732	254	327	5,781
Crude Petroleum Gasoline	375	4,732	254	327	5,781
Ethanol	375	4,732	254	327	5,781
Propane	0	0	0	0	0
Butane	120	311	0	120	451
Pentane	0	643	0	118	761
Hexane	106	0	254	0	360
Heptane	0	1,120	0	0	1,120
Octane	0	0	0	0	0
Other Liquids 1	2,653	823	3,400	823	7,499
Unfinished Gas 1	2,653	823	3,400	823	7,499
Motor Gasoline Blending Components	261	125	135	0	521
Aviation Gasoline Blending Components	0	0	0	0	0
Finished Petroleum Products	34,546	1,259	3,521	145	40,471
Finished Motor Gasoline	3,317	194	0	13	3,524
Finished Unleaded Motor Gasoline	4,432	0	0	3	4,435
Finished Aviation Gasoline	1	0	0	0	1
Napthalene-Type Jet Fuel	407	0	0	0	407
Kerosene-Type Jet Fuel	407	0	0	0	407
Other	0	0	0	0	0
Kerosene	299	0	115	0	414
Diesel Fuel Oil	7,018	382	240	0	7,640
Bonded Ship's Bunkers	0	0	0	0	0
Other	0	0	0	0	0
Refined Fuel Oil	10,168	545	2,057	0	12,770
Bonded Ship's Bunkers	0	0	0	0	0
Other	18,165	545	2,057	0	20,767
Napthalene < 400 Dmg for Petro Feed Use	14	37	353	0	404
Other Oils > 400 Dmg for Petro Feed Use	54	84	0	0	138
Unleaded Napthalene	129	0	277	0	406
Unleaded Napthalene	2	2	0	0	4
Waxes	395	5	0	0	400
Asphalt and Road Oil	203	7	17	0	227
Miscellaneous Products	0	0	0	0	0
Total Imports	65,547	23,223	71,876	2,040	162,686

1 Crude oil and unfinished oil are reported by the PAD District in which they are to be processed; all other products are reported by the PAD District of entry.
2 Includes crude oil imported for storage in the Strategic Petroleum Reserve.
(a) Less than 500 barrels.
Source: See Explanatory Notes on Data Collection and Estimation.

Table 17. Imports Of Crude Oil and Petroleum Products by Source and PAD District, July 1983
(Thousand Barrels)

Source	Crude Oil 1	LPG	Unrefined Oils	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Dist. Fuel Oil	Road Fuel Oil	Special Napthas	Other Products 2	Total Products	Total Promotions	Total (Daily Average)
Arabia OPEC														
Algeria	7,728		0	0	0	0	0	652	351	0	0	1,003	8,731	262
Iran	1,910		0	0	0	0	0	0	0	0	0	0	1,910	62
Kuwait	0		0	0	0	0	0	0	498	0	0	0	498	15
Saudi Arabia	5,364		270	0	0	0	0	0	0	0	(4)	270	5,634	182
United Arab Emirates	1,204		0	0	0	0	0	0	0	0	0	0	1,204	59
Subtotal Arab OPEC	16,206		270	(4)	0	0	0	652	849	0	566	2,337	18,573	599
Other OPEC														
Equador	2,253		0	0	0	0	0	0	129	0	0	129	2,382	76
Gabon	1,028		0	0	0	0	0	0	0	0	0	0	1,028	33
Indonesia	13,092		42	0	277	0	0	0	584	0	0	387	13,960	464
Iran	3,485		0	0	0	0	0	0	0	0	0	0	3,485	112
Nigeria	16,279		726	0	1,126	0	0	0	3,717	0	2	8,218	18,289	525
Venezuela	11,111		0	0	0	0	240	2,434	3,717	0	(4)	2,434	13,259	431
Subtotal Other OPEC	41,229		770	0	1,385	0	240	2,434	4,430	0	388	9,946	50,677	1,541
Other														
Angola	3,181		0	0	0	0	0	0	305	0	0	305	3,487	112
Bahamas	0		795	0	0	0	294	0	883	0	235	2,148	2,148	59
Bolivia	247		0	0	0	0	0	0	0	0	0	0	247	8
Brazil	0		0	0	1,036	0	0	0	336	0	0	1,344	1,344	43
Burma	199		0	0	0	0	0	0	0	0	0	0	199	6
Canada	10,232	5,641	327	125	503	8	11	1,049	1,064	221	0	337	9,276	623
Chad	1,872		0	0	0	0	0	0	0	0	0	0	1,872	54
Egypt	335		0	0	0	0	0	0	0	0	0	0	335	11
France	0		0	0	0	0	0	0	0	0	0	0	0	(4)
Germany	25,026	284	0	0	0	0	0	0	43	0	0	126	25,152	844
Malaysia	0		203	32	282	118	(4)	0	2	46	103	1,329	1,539	59
Netherlands	0	(4)	1,572	0	0	0	0	471	3,554	0	205	5,312	5,912	191
Norway	3,155		0	0	0	0	0	0	0	0	0	0	3,155	103
Qatar	1,482		0	0	0	0	0	0	0	0	0	0	1,482	48
People's Republic of China	0		226	273	499	0	0	0	0	0	0	988	988	32
Peru	383		0	0	0	0	0	0	976	0	0	976	1,359	44
Porto Rico	0		256	0	532	0	53	0	0	142	163	1,151	1,151	37
Spain	0		0	0	712	0	0	22	0	0	0	542	3,298	111
Trinidad and Tobago	2,867		0	0	0	0	0	0	942	0	0	942	3,298	102
United Kingdom	10,732		109	0	208	0	0	0	286	0	15	688	11,450	369
United States	0		2,215	0	2,325	407	0	2,468	3,653	0	0	11,278	11,278	364
Virgin Islands	1,086		0	0	0	0	0	0	0	0	0	0	1,086	35
Zaire	0		0	0	0	0	0	0	0	0	0	0	0	0
Zambia	0		19	0	0	0	0	13	1,692	0	4	1,720	1,865	60
Yemen	140		0	0	0	0	0	222	2,117	35	4	3,024	3,024	185
Other Eastern Hemisphere	62,447	5,935	6,188	909	7,818	688	299	4,940	15,875	445	1,316	44,532	126,149	3,450
Subtotal Other	115,912	5,935	7,426	909	9,253	688	530	8,016	21,154	445	2,181	55,485	175,399	5,590
Total Imports														

See footnotes at end of table

Table 17. Imports Of Crude Oil and Petroleum Products by Source and PAD District, July 1983
(continued)

Source	Crude Oil	LPG	Un-distilled Oil	Gasoline blending components	Finished Motor Gasoline	Jet Fuel	Kerosene	Dist. Fuel Oil	Resid. Fuel Oil	Special Naphtha	Other Products	Total Petroleum	Total (Daily Average)
PAD District I													
Arab OPEC													
Algeria	1,726	0	0	0	0	0	0	652	351	0	0	1,003	2,729
Saudi Arabia	1,950	0	270	0	0	0	0	0	0	0	(1)	270	1,962
Qatar	0	0	0	(1)	0	0	0	0	0	0	0	0	0
United Arab Emirates	0	0	0	0	0	0	0	652	351	0	996	1,899	5,116
Subtotal Arab OPEC	3,676	0	270	(1)	0	0	0	0	0	0	0	0	186
Other OPEC													
Ecuador	1	0	0	0	0	0	0	0	129	0	0	129	130
Ghana	827	0	0	0	0	0	0	0	0	0	0	827	27
Guinea	2,514	0	0	0	0	0	0	0	0	0	0	2,514	42
Indonesia	1,351	0	0	0	0	0	0	0	0	0	0	1,351	11
Iran	1,405	0	0	0	0	0	0	0	0	0	0	1,405	45
Nigeria	1,405	0	0	0	0	0	0	0	0	0	0	1,405	45
Venezuela	3,270	0	0	0	1,108	0	0	1,981	3,250	0	(1)	6,355	9,025
Subtotal Other OPEC	8,370	0	0	0	1,108	0	0	1,981	3,250	0	(1)	6,464	15,055
Other													
Angola	2,103	0	0	0	0	0	0	0	305	0	0	305	2,408
Bahamas	0	0	0	0	0	0	224	0	590	0	1	825	825
Bolivia	0	0	0	0	1,008	0	0	0	336	0	(1)	1,344	43
Brazil	902	227	0	0	203	0	11	587	514	7	158	1,707	2,409
Egypt	355	0	0	0	0	0	0	0	0	0	0	355	11
France	0	0	0	0	0	0	0	0	0	0	0	0	0
Germany	3,457	0	0	281	290	0	0	0	197	0	0	750	4,216
Netherlands	0	0	0	0	916	0	0	479	0	10	0	1,406	1,406
Netherlands Antilles	0	0	1,572	0	(1)	0	0	471	3,554	0	285	5,883	9,003
Norway	2,181	0	0	0	0	0	0	0	0	0	0	2,181	10
Qatar	518	0	0	0	0	0	0	0	0	0	0	518	17
Spain	358	0	0	0	0	0	0	0	0	0	0	358	44
Sweden	0	0	0	0	0	0	0	0	976	0	0	976	1,259
Finland	0	0	280	0	532	0	53	0	0	70	123	1,017	1,017
France	0	0	0	0	739	0	0	227	0	0	0	966	966
Trinidad and Tobago	446	0	0	0	0	0	0	542	0	0	0	542	32
United Kingdom	4,132	0	0	0	208	0	0	0	286	0	(1)	4,006	309
Virgin Islands	0	0	299	0	2,025	487	0	2,466	3,150	0	0	6,094	202
Other Western Hemisphere	734	0	0	0	0	0	0	0	0	0	0	734	24
Honduras	0	0	0	0	0	0	0	0	1,692	0	0	1,692	55
Other Eastern Hemisphere	550	0	192	0	430	0	0	153	1,391	(1)	0	2,056	3,155
Subtotal Other	15,090	227	2,302	281	5,641	407	259	4,389	16,446	87	587	23,544	43,334
Total Imports	27,580	227	2,572	281	7,749	407	259	7,018	18,193	87	1,133	37,967	65,547
PAD District II													
Arab OPEC													
Algeria	690	0	0	0	0	0	0	0	0	0	0	0	690
Libya	1,816	0	0	0	0	0	0	0	0	0	0	0	1,816
Subtotal Arab OPEC	2,506	0	0	0	0	0	0	0	0	0	0	0	2,506

See footnotes at end of table.

Table 17. Imports Of Crude Oil and Petroleum Products by Source and PAD District, July 1963
(Thousands Barrels)
(continued)

Source	Crude Oil 1	LPG	Unfractionated Crude Oil	Gasoline Blending Components	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Residual Fuel Oil	Special Naphthas	Other Products 2	Total Products 100%	Total Petroleum	Total Daily Average
PAD District II														
Other OPEC														
Iran	452	0	0	0	0	0	0	0	0	0	0	0	452	15
Nigeria	475	0	0	0	0	0	0	0	0	0	0	0	475	15
Venezuela	252	0	477	0	0	0	0	0	0	0	0	477	729	24
Subtotal Other OPEC	1,180	0	477	0	0	0	0	0	0	0	0	477	1,656	53
Other														
Ceylon	6,810	4,753	200	125	195	0	0	325	545	64	58	6,330	13,147	424
Congo	650	0	0	0	0	0	0	0	0	0	0	0	650	28
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	2,178	0	0	0	0	0	0	0	0	0	0	0	2,178	70
Netherlands	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oman	530	0	0	0	0	0	0	0	0	0	0	0	530	17
United Kingdom	782	0	0	0	0	0	0	0	0	0	0	0	782	26
United States	140	0	0	0	0	0	0	0	0	0	0	0	140	5
Other Eastern Hemisphere	899	0	0	0	0	0	0	0	0	0	0	0	899	29
Subtotal Other	12,534	4,753	200	125	195	0	0	325	545	64	58	6,330	18,372	612
Total Imports	19,408	4,753	677	125	195	0	0	325	545	64	58	6,814	23,223	740
PAD District III														
Arab OPEC														
Algeria	4,504	0	0	0	0	0	0	0	0	0	0	0	4,504	158
Iran	14	0	0	0	0	0	0	0	0	0	0	0	14	0
Kuwait	0	0	0	0	0	0	0	0	438	0	0	438	489	122
Saudi Arabia	3,771	0	0	0	0	0	0	0	0	0	0	0	3,771	122
United Arab Emirates	1,294	0	0	0	0	0	0	0	0	0	0	0	1,294	40
Subtotal Arab OPEC	9,523	0	0	0	0	0	0	0	438	0	0	438	10,451	336
Other OPEC														
El Salvador	1,881	0	0	0	0	0	0	0	0	0	0	0	1,881	60
Japan	201	0	0	0	0	0	0	0	0	0	0	0	201	6
Indonesia	2,710	0	0	0	0	0	0	0	505	0	0	505	3,225	104
Iran	2,490	0	0	0	0	0	0	0	0	0	0	0	2,490	83
Nigeria	14,508	0	0	0	0	0	0	0	0	0	0	0	14,508	484
Venezuela	1,278	0	262	0	0	0	0	443	450	0	0	1,396	2,685	86
Subtotal Other OPEC	22,558	0	252	0	0	0	240	443	955	0	2	1,882	24,830	801
Other														
Angola	1,079	0	0	0	0	0	0	0	0	0	0	0	1,079	35
Bahamas	0	0	795	0	0	0	0	0	294	0	0	1,323	1,323	43
Canada	802	0	0	40	0	0	0	0	0	153	0	173	975	31
Congo	0	0	0	0	0	0	0	0	0	0	0	0	0	0
France	0	0	0	0	0	0	0	0	0	0	0	0	0	0

See footnotes at end of table.

Table 17. Imports Of Crude Oil and Petroleum Products by Source and PAD District, July 1983
(Thousand Barrels)

Source	Crude Oil ¹	LPG	Unrefined Condensates	Gasoline	Finished Motor Gasoline	Jet Fuel	Kerosene	Distillate Fuel Oil	Road Fuel Oil	Special Naphtha	Other Petroleum Products ²	Total Petroleum Imports	Total Daily Average
PAD District II													
Other	10,300	294	0	0	0	110	0	3	13	1	2	429	19,739
Mexico	0	0	0	0	0	0	0	0	0	0	0	0	0
Netherlands	0	0	0	22	0	0	0	0	0	58	163	181	181
Norway	1,014	0	0	0	0	0	0	0	0	0	0	0	1,014
Spain	445	0	0	0	0	0	0	0	0	0	0	0	445
Puerto Rico	0	0	0	0	0	0	0	0	0	0	0	0	0
Trinidad and Tobago	1,785	0	0	0	0	0	0	0	0	0	0	0	1,785
United Kingdom	5,859	0	189	0	0	0	0	0	0	0	15	204	6,012
Virgin Islands	0	0	1,816	0	0	0	0	0	236	0	0	2,215	194
Other Western Hemisphere	352	0	0	0	0	0	0	0	0	0	0	352	71
Other Eastern Hemisphere	0	0	0	19	0	0	0	13	0	0	4	38	39
Subtotal Other	401	0	172	97	0	0	0	0	35	11	315	716	23
Subtotal Other	294	3,112	138	0	0	116	0	16	905	277	370	4,327	36,724
Total Imports	64,959	294	3,365	138	0	116	240	459	2,637	277	371	7,517	71,978
PAD District IV													
Other	1,481	238	87	0	73	0	0	67	5	0	90	553	2,040
Subtotal Other	1,481	238	87	0	73	0	0	67	5	0	90	553	2,040
Total Imports	1,481	238	87	0	73	0	0	67	5	0	90	553	2,040
PAD District V													
Arab OPEC	329	0	0	0	0	0	0	0	0	0	0	0	329
Algeria	329	0	0	0	0	0	0	0	0	0	0	0	329
Subtotal Arab OPEC	329	0	0	0	0	0	0	0	0	0	0	0	329
Other OPEC	363	0	0	0	0	0	0	0	0	0	0	0	363
Indonesia	7,839	0	42	0	277	0	0	0	95	0	337	725	8,233
Venezuela	340	0	0	0	0	0	0	0	0	0	0	0	340
Subtotal Other OPEC	8,541	0	42	0	277	0	0	0	95	0	337	725	8,236
Other	247	0	0	0	0	0	0	0	0	0	0	0	247
Bolivia	150	0	0	0	0	0	0	0	0	0	0	0	150
Canada	297	429	0	0	123	8	0	0	0	16	30	620	837
Malaysia	0	0	0	0	84	0	0	0	43	0	0	128	128
Mexico	191	0	0	0	0	0	0	0	0	0	9	21	192
Netherlands	0	0	283	0	0	0	0	0	0	0	0	283	283
Netherlands Antilles	0	0	0	0	0	0	0	0	0	0	0	0	0
People's Republic of China	0	0	226	273	409	29	0	0	0	0	0	988	988
Other Eastern Hemisphere	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Eastern Hemisphere	0	0	207	91	213	107	0	70	225	0	332	944	1,422
Subtotal Other	844	423	595	354	509	144	0	76	274	10	131	3,034	3,870
Total Imports	9,745	423	738	354	1,189	144	0	76	354	16	537	3,829	13,814

¹ Includes crude oil imported for storage at the Strategic Petroleum Reserve.

² Includes motor gasoline, kerosene, jet fuel, naphtha, residual fuel oil, asphalt, bitumen, and miscellaneous petroleum products.

³ Includes less than 400 degrees F. other oil greater than 400 degrees F. and miscellaneous products.

⁴ Includes less than 500 barrels or less than 500 barrels per day.

Note: Totals may not equal sum of components due to independent rounding.

Source: Energy Information Administration, Washington, D.C.

Table 18. Exports of Crude Oil and Petroleum Products by PAD District, July 1983
(Thousand Barrels)

Commodity	Petroleum Administration for Defense Districts					
	I	II	III	IV	V	Total
Crude Oil (including lease condensate) ¹	0	348	0	0	4,148	4,494
Liquid Petroleum Gases	32	742	762	0	125	1,661
Ethane	(b)	29	0	0	0	29
Propane	281	368	368	0	51	790
Butane	13	451	312	0	71	912
Isobutane	0	0	0	0	0	0
Butane-Propane Mixtures	0	0	0	(b)	53	53
Fractured Motor Gasoline	3	157	424	0	0	584
Naphtha-Type Jet Fuel	0	0	(b)	0	0	(b)
Kerosene-Type Jet Fuel	0	0	0	0	37	37
Distillate Fuel Oil	0	(b)	0	1	0	2
Residual Fuel Oil	79	0	585	0	1,525	1,605
Other Petroleum Products	(b)	0	844	0	1,355	2,199
Naphtha < 400 Dps. for Petrochem. Feedstock	34	4	101	(b)	6	146
Other Oils > 400 Dps. for Petrochem. Feedstock	0	59	256	0	1	317
Special Naphthas	3	1	35	(b)	1	39
Monocents	153	10	369	1	30	577
Waxes	4	0	25	0	1	30
Petroleum Coke	221	91	2,477	1	2,451	5,350
Asphalt	1	2	(b)	(b)	2	5
Miscellaneous Products	12	(b)	0	(b)	4	24
Total Product Exports	544	1,022	5,760	5	5,087	13,217
Total Exports	544	1,368	5,760	5	10,035	17,711

¹ Exports of crude oil are prohibited by law. However, some crude oil is exchanged with

Canada on a barrel-for-barrel basis, and crude oil is shipped to U.S. Territories

(especially Puerto Rico and the Virgin Islands) to be refined there. The Statistical

Administration does not include these exchanges and shipments as imports and exports

(b) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

Table 19. Exports of Crude Oil and Petroleum Products by Destination, July 1983
(Thousand Barrels)

(continued)																
Destination	Cruise On	LPG	Finished Motor Gasoline	Jet Fuel	Dist. Fuel Oil	Residual Fuel Oil	Special Naphtenes	Lubricants	Waxes	Petro-chemicals	Asphalt	Other	Total	Total Duty Average		
Singapore	0		0		0	0	0	2	(M)	36	(M)	3	6	7		
Spain	0	(M)	0	0	0	0	0	(M)	0	1,837	(M)	73	1,743	56		
Switzerland	0	0	0	0	0	0	0	0	0	16	0	0	17	1		
Sweden	0	0	0	0	0	0	0	1	(M)	0	0	0	54	3		
Switzerland	0	(M)	0	0	0	0	(M)	0	0	95	0	0	96	3		
Thailand	0	0	0	0	0	0	1	17	(M)	0	0	0	18	1		
Tinian and Tobago	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Turkey	0	0	0	0	0	0	0	0	0	0	0	0	16	1		
United Arab Emirates	0	0	0	0	0	0	0	0	0	0	0	0	18	2		
U.S.A.	0	0	0	0	0	0	0	0	0	0	0	0	35	1		
U.S.S.R.	0	3	0	0	0	0	0	25	(M)	0	0	0	27	1		
Venezuela	0	0	0	-0	0	0	0	40	(M)	0	0	0	40	1		
Yugoslavia	0	0	0	0	0	0	0	0	1	(M)	0	0	2	0		
Zanzibar	0	(M)	0	0	0	0	4	(M)	0	64	0	1	100	3		
Virgin Islands	2,018	0	22	0	0	344	0	0	0	0	0	0	2,364	77		
West Germany	0	(M)	0	0	(M)	0	0	0	0	75	0	0	54	3		
Yugoslavia	0	0	0	0	0	0	0	0	0	0	0	0	25	1		
Other	554	60	1	0	(M)	0	(M)	0	0	85	(M)	0	17	746	24	
Grand Total	4,494	1,691	588	37	1,695	2,795	39	377	27	5,253	5	530	17,711	571		

¹ Exports of crude oil are prohibited by law. However, some crude oil is exchanged with

Canada on a barrel for barrel basis, and crude oil is shipped to U.S. terminals

(especially Puerto Rico and the Virgin Islands) to be refined there. The Su-

Tracking Systems count these exchanges and shipments as impor-

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, July 1983
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III			PAD District IV			Unrefined Stocks
	East Coast	Appa- lachi- an #1	Total	Appa- lachi- an #2	Ind. Ill. Ry.	Wisc. Dicks	Okla. Kans.	Mo.	Texas Trans.	Texas Gulf Coast	La. Gulf Coast	La. No. La. RVC	New Mexico	Total	
Crude Oil (incl. lease condensate)															
Refinery	—	—	14,920	—	—	—	—	—	14,920	—	—	—	—	14,920	102,869
Storage	—	—	1,295	—	—	—	—	—	81,701	—	—	—	—	80,344	24,407
Leases	—	56	—	—	—	—	—	—	1,596	—	—	—	—	1,596	59,391
Strategic Petroleum Reserve	—	—	—	—	—	—	—	—	—	—	—	—	—	17,317	191,807
Alaskan In-Transit	—	—	—	—	—	—	—	—	—	—	—	—	—	246,672	22,245
Total	—	—	16,250	—	—	—	—	—	78,034	—	—	—	—	246,672	340,672
	—	—	—	—	—	—	—	—	—	—	—	—	—	0	25,009
	—	—	—	—	—	—	—	—	—	—	—	—	—	13,298	25,009
	—	—	—	—	—	—	—	—	—	—	—	—	—	494,210	60,371
	—	—	—	—	—	—	—	—	—	—	—	—	—	17,139	682,466
Total Stocks, All Oils (excl. Crude Oil)	37,744	2,719	40,463	1,087	40,216	6,520	14,605	4,355	9,077	85,246	43,464	1,471	1,471	141,353	66,230
Refinery	—	—	114,249	—	—	—	—	—	80,362	—	—	—	—	87,955	23,414
Bulk Terminal	—	—	37,877	—	—	—	—	—	3,107	—	—	—	—	3,107	316,475
Pipeline	—	—	—	—	—	—	—	—	1,871	1,278	777	70	285	4,281	4,281
Natural Gas Processing Plant	—	—	170	—	—	—	—	—	188,289	—	—	—	—	270,495	6,255
Total	—	—	182,802	—	—	—	—	—	188,289	—	—	—	—	270,495	22,839
Natural Gasoline and Isopentane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refinery	—	—	18	—	—	—	—	—	182	71	613	1	18	720	58
Bulk Terminal	—	—	40	—	—	—	—	—	1,572	—	—	—	—	1,612	0
Pipeline	—	—	—	—	—	—	—	—	—	—	—	—	—	831	0
Natural Gas Processing Plant	—	—	—	—	—	—	—	—	—	—	—	—	—	710	5
Total	—	—	58	—	—	—	—	—	1,594	—	—	—	—	4,543	1,430
Unfractionated Stream	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refinery	—	—	0	—	—	—	—	—	887	—	—	—	—	1,974	0
Bulk Terminal	—	—	0	—	—	—	—	—	152	—	—	—	—	2,443	0
Pipeline	—	—	—	—	—	—	—	—	—	—	—	—	—	1,196	0
Natural Gas Processing Plant	—	—	0	—	—	—	—	—	694	196	890	98	1	5,613	21
Total	—	—	3	—	—	—	—	—	1,773	—	—	—	—	8,687	3
Plant Condensate	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refinery	—	—	0	—	—	—	—	—	5	2	74	0	48	132	0
Bulk Terminal	—	—	0	—	—	—	—	—	0	—	—	—	—	2	0
Pipeline	—	—	0	—	—	—	—	—	0	—	—	—	—	285	0
Natural Gas Processing Plant	—	—	0	—	—	—	—	—	33	26	7	4	0	70	25
Total	—	—	0	—	—	—	—	—	13	—	—	—	—	445	25
Liquidified Petroleum Gases	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refinery	493	9	502	277	1,771	100	615	2,703	157	4,711	2,258	23	19	7,168	623
Bulk Terminal	—	—	1,711	—	—	—	—	54,375	—	—	—	—	—	54,375	75
Pipeline	—	—	23	—	—	—	—	3,080	—	—	—	—	—	3,080	36
Natural Gas Processing Plant	—	—	—	—	—	—	—	—	—	—	—	—	—	2,127	0
Total	141	30	171	0	80	35	373	498	1,181	168	513	42	243	66,559	134
	—	—	5,199	—	—	—	—	37,439	—	—	—	—	—	66,559	323
Ethane	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refinery	0	0	0	0	5	0	0	0	5	0	936	0	0	936	0
Bulk Terminal	—	—	0	—	—	—	—	—	792	—	—	—	—	2,047	0
Pipeline	—	—	0	—	—	—	—	—	1,228	—	—	—	—	2,962	0

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, July 1983
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II				PAD District III				Total		PAD District IV		PAD District V		Unacid Stocks
	East Coast	Appa- lachi- an #1	Total	Appa- lachi- an #2	Ind. IL, Ky	Minn. Wisc., Iowa, Mo.	Total	Texas Inland	Texas Gulf Coast	La., Gulf Coast	No. La., Ark.	New Mexico	Total	Rocky Mts.	Dist. IV	Dist. V	West Coast	
Ethane	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Propane For Petrochemical Feedstock Use																		
Refinery	35	0	35	0	133	0	134	2	7	30	0	0	39	0	0	0	0	200
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	35	0	133	0	134	2	7	30	0	0	39	0	0	0	0	200
Propane For Other Uses																		
Refinery	408	6	414	4	1,163	27	242	1,438	41	1,785	951	4	2,703	137	107	107	4,857	
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45,745
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	88	39	127	0	47	29	119	2,849	696	35	372	18	3,283	94	94	94	5,544	
Total	0	0	4,737	0	1,210	56	22,144	4,287	1,481	2,156	1,323	22	31,101	308	590	590	58,600	
Butane For Petro. Feed Use																		
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
Butane For Other Uses																		
Refinery	48	3	51	229	235	46	282	742	25	1,303	688	3	2,037	109	300	300	3,299	
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	51	0	51	0	14	10	70	819	4	287	56	17	78	32	14	14	716	
Total	0	0	403	0	249	56	5,442	1,561	29	1,590	754	24	15,653	141	1,165	1,165	32,714	
Butane-Propane Mixtures For Petro. Feed Use																		
Refinery	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Butane-Propane Mixtures For Other Uses																		
Refinery	0	0	0	0	3	0	0	0	1	9	12	1	5	28	5	157	100	
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	3	0	0	0	1	9	12	1	5	28	5	157	100	
See footnotes at end of table.																		

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, July 1983
(Thousand Barrels) (continued)

[illegible]

Can fracture at end of tube.

Table 20. Stocks of Crude Oil and Petroleum Products By PAD District, July 1983
(Thousand Barrels) (continued)

Commodity	PAD District I			PAD District II							PAD District III				PAD District IV		United States
	East Coast	Appalachian	Total	Appalachian	Ind. Ill. Ky	Miss. Wisc. Mo	Okla. Minn. Wisc. Mo	Texas Gulf Coast	Texas Gulf Coast	Texas Gulf Coast	La. Gulf Coast	No. La. Gulf Coast	New Mexico	Total	Rocky Mt.	West Coast	
Total Finished Motor Gasoline	24	0	24	0	0	0	0	0	0	0	0	0	0	0	10	0	34
Natural Gas Processing Plant	—	—	59,643	—	—	—	—	57,042	—	—	—	—	—	46,770	4,693	21,663	189,813
Total	24	0	59,667	0	0	0	0	57,042	—	—	—	—	—	46,770	4,693	21,663	189,813
Finished Leadless Motor Gasoline	2,232	78	2,310	64	2,764	874	1,795	5,487	882	4,469	2,269	576	153	8,059	1,169	3,954	20,539
Bulk Terminal	—	—	19,938	—	—	—	—	15,100	—	—	—	—	—	6,489	901	5,254	48,782
Pipeline	—	—	8,073	—	—	—	—	8,207	—	—	—	—	—	8,115	891	1,240	28,526
Natural Gas Processing Plant	14	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	28
Total	—	—	31,255	—	—	—	—	50,804	—	—	—	—	—	22,673	2,869	10,116	97,919
Finished Unleaded Motor Gasoline	2,805	76	2,881	25	3,025	459	1,153	4,672	948	5,301	2,816	284	84	9,431	694	4,727	22,405
Bulk Terminal	—	—	18,695	—	—	—	—	14,367	—	—	—	—	—	5,538	403	5,510	45,801
Pipeline	—	—	5,702	—	—	—	—	7,199	—	—	—	—	—	9,130	537	1,308	23,676
Natural Gas Processing Plant	10	0	10	0	0	0	0	0	0	0	0	0	0	0	2	0	12
Total	—	—	28,288	—	—	—	—	28,226	—	—	—	—	—	24,097	1,726	11,245	97,934
Finished Aviation Gasoline	47	0	47	0	144	0	31	175	25	349	106	0	0	432	43	207	954
Bulk Terminal	—	—	459	—	—	—	—	269	—	—	—	—	—	81	20	327	1,260
Pipeline	—	—	0	—	—	—	—	146	—	—	—	—	—	13	0	0	159
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	29	0	0	0	0	0	0	0	29
Total	—	—	506	—	—	—	—	720	—	—	—	—	—	603	63	534	2,408
Marine-Type Jet Fuel	274	30	304	0	769	61	266	1,116	261	724	712	166	173	2,026	259	852	4,567
Bulk Terminal	—	—	258	—	—	—	—	984	—	—	—	—	—	201	6	416	1,585
Pipeline	—	—	115	—	—	—	—	222	—	—	—	—	—	467	103	494	1,401
Total	—	—	677	—	—	—	—	2,322	—	—	—	—	—	2,704	369	1,762	7,638
Kerosene-Type Jet Fuel	1,102	0	1,102	35	1,118	83	178	1,414	275	2,089	1,820	7	74	5,103	352	3,227	11,850
Bulk Terminal	—	—	4,484	—	—	—	—	4,908	—	—	—	—	—	2,253	234	1,552	13,011
Pipeline	—	—	3,560	—	—	—	—	1,800	—	—	—	—	—	2,867	183	358	8,917
Total	—	—	9,226	—	—	—	—	7,691	—	—	—	—	—	10,375	719	5,637	29,858
Kerosene	347	82	429	0	412	33	189	634	41	925	527	9	86	1,528	4	252	2,267
Bulk Terminal	—	—	2,814	—	—	—	—	944	—	—	—	—	—	830	22	81	4,791
Pipeline	—	—	333	—	—	—	—	167	—	—	—	—	—	274	0	0	774
Natural Gas Processing Plant	0	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	2
Total	—	—	3,676	—	—	—	—	1,745	—	—	—	—	—	2,704	26	373	6,524
Distillate Fuel Oils	5,176	286	5,462	83	5,414	1,480	2,275	9,253	1,146	10,203	4,485	882	229	17,025	1,826	4,385	38,550
Bulk Terminal	—	—	38,167	—	—	—	—	15,384	—	—	—	—	—	6,385	677	5,176	98,801
Pipeline	—	—	6,276	—	—	—	—	7,963	—	—	—	—	—	9,040	538	839	24,646

See footnotes at end of table.

Table 20. Stocks of Crude Oil and Petroleum Products by PAD District, July 1963
(Thousand Barrels) (continued)

Commodity	PAD District I		PAD District II				PAD District III				PAD District IV		PAD District V	United States
	East Coast	Appalachian	Ind. Ill. Ky	Minn. Ind. Pa. Ohio	Texas Gulf Coast	Total	Tex. Gulf Coast	La. Gulf Coast	No. La. Ave.	New Mexico	Rocky Mt.	Dak. Neb. W. Wind.		
Distillate Fuel Oils														
Natural Gas Processing Plant	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Residual Fuel Oils														
Bulk Terminal	4,233	101	4,334	48	1,829	205	239	2,322	170	4,218	2,707	163	46	7,007
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	4,233	101	4,334	48	1,829	205	239	2,322	170	4,218	2,707	163	46	7,007
Napthalene < 400 Deg. Petro. Feedstock														
Bulk Terminal	43	0	43	0	165	0	57	222	128	943	614	55	0	1,751
Total	43	0	43	0	165	0	57	222	128	943	614	55	0	1,751
Other Oils > 400 Deg. Petro. Feedstock														
Refinery	5	0	5	0	28	0	1	30	224	1,245	244	0	0	1,713
Total	5	0	5	0	28	0	1	30	224	1,245	244	0	0	1,713
Special Naphthalene														
Bulk Terminal	22	41	63	0	160	0	165	315	31	1,233	55	149	0	1,405
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	22	41	63	0	160	0	165	315	31	1,233	55	149	0	1,405
Lubricants														
Refinery	851	957	1,808	0	702	0	255	957	40	3,115	857	548	0	4,500
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	851	957	1,808	0	702	0	255	957	40	3,115	857	548	0	4,500
Waxes														
Bulk Terminal	17	139	156	0	48	0	47	95	30	274	162	30	0	556
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	17	139	156	0	48	0	47	95	30	274	162	30	0	556
Petroleum Coke														
Refinery	683	0	683	0	791	153	268	1,212	5	46	477	150	0	678
Total	683	0	683	0	791	153	268	1,212	5	46	477	150	0	678
Asphalt and Road Oil														
Refinery	1,023	44	1,067	201	3,419	1,958	1,041	6,748	550	921	842	707	253	2,950
Bulk Terminal	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,023	44	1,067	201	3,419	1,958	1,041	6,748	550	921	842	707	253	2,950
Miscellaneous Products														
Bulk Terminal	240	31	279	1	61	15	8	65	36	320	60	48	0	470
Pipeline	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	240	31	279	1	61	15	8	65	36	320	60	48	0	470
Total Stocks, All Oils	—	—	190,055	—	—	—	—	298,323	—	—	—	—	—	764,615

1. Includes 23,879 thousand barrels of domestic crude oil.
Source: See Explanatory Notes on Data Collection and Estimation.
— Not Applicable.

Table 21. Movements of Crude Oil and Petroleum Products by Pipeline, Tanker, and Barge Between PAD Districts, July 1993
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to			From VI to		
	II	III	V	I	III	IV	V	I	II	IV	V	II	III	V	I	II	III	IV
Crude Oil (Tanker and Barge only)	0	0	0	0	0	0	0	0	416	1,931	0	0	0	0	0	4,490	0	17,924
Petroleum Products	8,113	204	0	3,359	5,246	2,171	345	75,805	27,250	0	2,124	1,503	348	1,262	0	0	0	0
Natural Gasoline and Intermediate	0	0	0	0	0	0	0	0	550	0	0	0	0	0	0	0	0	0
Unrefined Steam	0	0	0	0	0	0	0	0	865	0	0	0	348	0	0	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	462	1,971	48	0	1,193	3,868	0	0	0	0	0	0	0	0	0
Liquefied Petroleum Gases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unrefined Oil	0	0	0	0	0	0	0	0	1,235	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Finished Motor Gasoline	5,925	0	0	1,824	1,577	1,359	62	51,358	11,426	0	1,128	605	0	857	0	0	0	0
Finished Motor Gasoline	3,420	0	0	726	588	778	0	20,646	5,633	0	611	370	0	595	0	0	0	0
Finished Motor Gasoline	2,595	0	0	1,125	779	583	62	30,812	5,473	0	517	236	0	262	0	0	0	0
Finished Aviation Gasoline	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	147	0	0	0	13	54	0	75	136	0	0	0	0	0	0	0	0	0
Kerosene-Type Jet Fuel	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Distillate Fuel Oil	1,742	0	0	164	63	530	0	8,677	1,535	0	153	0	0	141	0	0	0	0
Distillate Fuel Oil	0	0	0	290	625	203	285	14,106	5,546	0	356	378	0	864	0	0	0	0
Residual Fuel Oil	0	90	0	47	287	0	0	2,169	32	0	0	0	0	0	0	0	0	0
Naphtha and Other Oils for Petro	17	0	0	0	0	0	0	30	8	0	0	0	0	0	0	0	0	0
Feedstock	0	0	0	10	0	0	0	226	145	0	0	0	0	0	0	0	0	0
Special Naphtha	7	60	0	28	0	0	0	689	394	0	191	0	0	0	0	0	0	0
Waxes	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	265	0	0	0	178	737	0	0	0	0	0	0	0	0	0
Miscellaneous Products	38	54	0	153	115	0	0	162	79	0	0	0	0	0	0	0	0	0
Total All Products	8,113	204	0	3,358	5,588	2,171	340	80,231	29,151	0	2,134	1,550	348	1,262	4,490	0	17,739	0

Sources: See Explanatory Notes on Data Collection and Estimation

Table 22. Movements of Petroleum Products by Pipeline between PAD Districts, July 1983
(Thousand Barrels)

[illegible]

Source: See Explanatory Notes on Data Collection and Definition.

Table 23. Movements of Crude Oil and Petroleum Products by Tanker and Barge Between PAD Districts, July 1983
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to			From V to		
	I	II	V	I	III	V	I	III	V	I	III	V	I	III	V
Crude Oil	0	0	0	0	0	0	0	416	0	1,551	0	4,490	0	17,459	0
Petroleum Products	2,394	204	0	757	402	348	22,352	1,558	4,295	16,519	3,868	435	0	0	8
Gasoline	0	0	0	0	0	0	171	0	0	171	0	0	0	0	0
Lubricated Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Friedland Motor Gasoline	1,653	0	0	306	0	82	11,738	484	1,596	9,888	993	244	0	0	0
Friedland Aviation Gasoline	0	0	0	0	0	0	157	28	55	74	47	0	0	0	0
Naphtex-Type Jet Fuel	147	0	0	0	0	0	395	0	395	0	0	0	0	0	0
Kerosene-Type Jet Fuel	81	0	0	0	0	0	3,249	314	823	2,109	272	0	0	0	0
Diesel Fuel Oil	501	0	0	40	0	208	3,171	553	300	2,311	1,171	0	0	0	0
Crude Fuel Oil	0	90	0	47	387	0	2,149	209	859	1,081	22	0	0	0	8
Residual Fuel Oil	17	0	0	0	0	0	29	0	29	0	0	0	0	0	0
Naphtex and Other Oils for Perm. Feed	0	0	0	15	0	0	228	0	119	107	145	0	0	0	0
Special Naphtex	7	60	0	28	0	0	869	0	393	364	191	0	0	0	0
Lubricants	0	0	0	0	0	0	7	0	7	0	0	0	0	0	0
Asphalt and Road Oil	0	0	0	208	0	0	178	0	0	169	79	0	0	0	0
Miscellaneous Products	38	54	0	9	115	0	162	0	94	59	79	0	0	0	0
Total	2,394	204	0	767	402	348	22,708	1,569	4,681	16,519	5,799	435	4,490	0	17,702

Source: See Explanatory Notes on Data Collection and Estimation.

Table 24. Net Movements of Crude Oil and Petroleum Products by Pipeline, Tanker and Barge Between PAD Districts, July 1983
(Thousand Barrels)

Commodity	P.A.D. District I			P.A.D. District II			P.A.D. District III			P.A.D. District IV			P.A.D. District V		
	Ship- ments into PAD I	Net Receipts into PAD I	Ship- ments from PAD I	Ship- ments into PAD II	Net Receipts into PAD II	Ship- ments from PAD II	Ship- ments into PAD III	Net Receipts into PAD III	Ship- ments from PAD III	Ship- ments into PAD IV	Net Receipts into PAD IV	Ship- ments from PAD IV	Ship- ments into PAD V	Net Receipts into PAD V	Ship- ments from PAD V
Crude Oil (Tanker and Barge only)	4,306	0	4,306	1,031	0	1,031	17,664	2,347	15,347	0	0	0	0	22,184	-22,184
Petroleum Products	83,333	8,317	74,966	37,231	11,423	25,798	6,146	105,239	-101,093	2,171	3,568	-1,387	3,734	8	3,726
Natural Gasoline	0	0	0	555	76	479	76	550	-474	0	5	-5	0	0	0
Unfractionated Stream	0	0	0	1,254	639	615	167	665	122	0	1,097	-1,097	0	0	0
Plant Condensate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unfractionated Gasoline	1,860	0	1,860	4,103	2,476	1,627	1,971	5,095	-3,124	45	241	-196	0	0	0
Unfractionated Oil	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Motor Gasoline Blending Components	0	0	0	1,239	0	1,239	0	1,239	-1,239	0	0	0	0	0	0
Aviation Gasoline Blending Components	53,282	5,895	47,387	18,027	5,052	12,975	1,677	63,812	-48,235	1,369	1,463	-84	2,047	0	2,047
Fractionated Motor Gasoline	21,344	3,400	17,944	8,723	2,472	6,251	998	27,110	-26,112	776	965	-189	1,206	0	1,206
Fractionated Motor Gasoline	3,768	2,000	1,768	2,000	1,200	800	71	30,422	-28,422	593	426	-163	541	0	541
Fractionated Aviation Gasoline	206	12	194	264	24	240	0	644	-448	84	0	84	0	0	0
Fractionated Jet Fuel	716	147	569	354	130	224	133	1,118	-985	0	71	-71	286	0	286
Jet Fuel	8,071	155	8,216	2,080	787	1,293	63	10,765	-10,732	530	141	389	324	0	324
Kerosene-Type Jet Fuel	194	0	194	38	0	38	0	232	-232	0	0	0	0	0	0
Kerosene	14,390	1,742	12,648	7,664	1,404	6,260	635	20,009	-19,383	203	640	-437	906	0	906
Residual Fuel Oil	2,196	90	2,106	25	334	-312	385	2,171	-1,786	0	0	0	0	8	-8
Residual Fuel Oil	20	17	3	25	0	25	0	37	-37	0	0	0	0	0	0
Residual Fuel Oil	241	0	241	145	15	130	0	371	-371	0	0	0	0	0	0
Special Naphtha	717	67	650	401	28	373	60	1,274	-1,214	0	0	0	191	0	191
Lighter Naphtha	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0
Wholes	444	0	444	737	286	471	0	915	-915	0	0	0	0	0	0
Asphalt and Road Oil	315	92	223	117	288	-161	169	241	-72	0	0	0	0	0	0
Miscellaneous Products	58,180	8,317	70,672	30,222	11,403	27,729	29,840	111,586	-87,746	2,171	3,568	-1,387	3,734	22,184	-22,184
Total All Products	141,619	18,617	123,002	77,463	22,826	54,637	36,004	141,586	-105,582	2,171	3,568	-1,387	3,734	22,184	-22,184

Source: See Explanatory Notes on Data Collection and Estimation.

Table 25. Production of Residual Fuel Oil By Sulfur Content, July 1983
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III			PAD District IV		
	East Coast	Appalachian	Total	Ind. N.Y.	Whic. Dist.	Ohio, Kans. Mo.	Texas Inland	Yucatan Coast	No. La.	New Mexico	Total	Rocky Mt.	Pacific West Coast	United States
Residual Fuel Oil	2,729	53	2,782	62	1,339	216	335	1,262	600	7,006	2,149	361	45	10,061
0.00 to 0.30% Sulfur	707	29	736	0	65	0	111	178	45	34	40	31	18	1,062
0.31 to 1.00% Sulfur	1,639	1	1,640	-14	324	0	150	460	481	2,225	449	77	0	3,223
Greater Than 1.00% Sulfur	138	23	156	76	550	216	74	1,316	74	4,440	1,660	94	35	6,303

Source: See Explanatory Notes on Data Collection and Estimation

Table 26. Stocks of Residual Fuel Oil By Sulfur Content, July 1983
(Thousand Barrels)

Commodity	PAD District I			PAD District II					PAD District III			PAD District IV		
	East Coast	Appalachian	Total	Ind. N.Y.	Whic. Dist.	Ohio, Kans. Mo.	Texas Inland	Yucatan Coast	No. La.	New Mexico	Total	Rocky Mt.	Pacific West Coast	United States
Residual Fuel Oil - 0.00 to 0.30% Sulfur	530	40	570	0	137	0	57	104	22	242	114	17	10	405
Bulk Terminal	---	---	4,241	---	---	---	---	78	---	---	---	---	---	38
Total	---	---	4,811	---	---	---	---	272	---	---	---	---	---	443
Residual Fuel Oil - 0.31 to 1.00% Sulfur	2,412	5	2,417	45	549	0	130	724	84	1,626	637	54	0	2,481
Bulk Terminal	---	---	7,268	---	---	---	---	54	---	---	---	---	---	3,060
Total	---	---	10,035	---	---	---	---	1,269	---	---	---	---	---	5,521
Residual Fuel Oil - Greater Than 1.00% Sulfur	1,261	56	1,317	4	1,153	205	52	1,414	64	2,750	1,886	92	39	4,841
Bulk Terminal	---	---	8,100	---	---	---	---	789	---	---	---	---	---	2,260
Total	---	---	10,467	---	---	---	---	2,203	---	---	---	---	---	7,791

Source: See Explanatory Notes on Data Collection and Estimation

--- Not Applicable

Table 27. Movements of Residual Fuel Oil by Tanker and Barge Between PAD Districts, By Sulfur Content, July 1983
(Thousand Barrels)

Commodity	From I to			From II to			From III to			From IV to		
	II	III	V	I	II	V	I	II	V	I	II	III
Residual Fuel Oil	0	90	0	47	297	0	2,149	209	859	1,061	22	0
0.00 to 0.30% Sulfur	---	---	---	---	---	---	---	---	---	---	---	---
0.31 to 1.00% Sulfur	0	0	0	0	0	0	0	0	0	0	0	0
Greater Than 1.00% Sulfur	0	0	0	4	0	0	615	209	137	360	0	0
Total	0	90	0	43	297	0	1,534	0	662	872	22	0

Source: See Explanatory Notes on Data Collection and Estimation

Table 28. Imports of Residual Fuel Oil by Sulfur Content by Country of Origin, July 1983
(Thousand Barrels)

Country	Residual Fuel Oil			
	0.30 to 0.30%	0.31 to 1.05%	Greater Than 1.05%	Total
Arab OPEC				
Algeria	351	0	0	351
Iraq	0	0	0	0
Kuwait	498	0	0	498
Libya	0	0	0	0
Oman	0	0	0	0
Saudi Arabia	0	0	0	0
United Arab Emirates	0	0	0	0
Subtotal Arab OPEC	849	0	0	849
Other OPEC				
Ecuador	0	0	129	129
Gabon	0	0	0	0
Indonesia	608	79	5	694
Iran	0	0	0	0
Nigeria	0	0	0	0
Venezuela	1,178	23	2,919	3,717
Subtotal Other OPEC	1,886	87	2,924	4,430
Other				
Angola	0	305	0	305
Australia	0	0	0	0
Bahamas	477	35	372	883
Bolivia	0	0	0	0
Brazil	338	0	0	338
Burundi	0	0	0	0
Canada	162	790	122	1,084
Congo	0	0	0	0
Egypt	0	0	0	0
France	0	0	0	0
Ghana	0	0	0	0
Liberia	0	0	0	0
Malaysia	0	11	32	43
Mexico	9	0	208	216
Netherlands	0	0	0	0
Netherlands Antilles	0	328	3,219	3,546
Norway	0	0	0	0
Oman	0	0	0	0
People's Republic of China	0	0	0	0
Peru	221	766	0	987
Puerto Rico	0	0	0	0
Romania	0	0	0	0
Spain	0	0	0	0
Sri Lanka	0	0	0	0
Trinidad	23	0	619	642
Tunisia	0	0	0	0
United Kingdom	0	286	0	286
Virgin Islands	1,144	1,683	1,035	3,863
Yugoslavia	0	0	0	0
Zaire	0	0	0	0
Arab OPEC				
Other Western Hemisphere	367	798	567	1,692
Other Eastern Hemisphere	644	1,353	230	2,117
Subtotal Other	3,294	8,302	8,230	19,876
Total Imports	5,813	8,380	8,942	21,184

(*) Less than 500 barrels.

Note: Total may not equal sum of components due to independent rounding.

Source: See Explanatory Notes on Data Collection and Estimation.

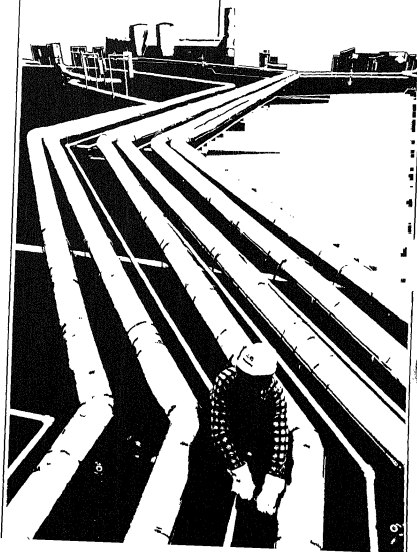
Table 29. Imports of Residual Fuel Oil by Sulfur Content by State of Entry, July 1983
(Thousand Barrels)

State	Residual Fuel Oil			
	0.00 to 0.30%	0.31 to 1.00%	Greater Than 1.00%	Total
PAD District I	3,827	5,809	8,458	18,193
Connecticut	544	0	0	544
Delaware	0	0	139	139
Florida	0	950	1,545	2,538
Georgia	0	0	298	298
Maine	0	0	484	484
Maryland	0	0	203	203
Massachusetts	0	843	1,511	2,354
New Hampshire	0	0	447	447
New Jersey	283	1,075	1,844	3,202
New York	3,075	2,214	1,171	6,461
Pennsylvania	23	683	225	1,131
Rhode Island	0	0	103	103
South Carolina	0	0	107	107
Vermont	2	0	0	2
Virginia	0	0	579	579
PAD District II	180	349	36	565
Illinois	0	190	0	190
Michigan	180	175	0	355
Minnesota	0	0	7	7
North Dakota	0	0	28	28
Ohio	0	14	0	14
PAD District III	1,724	0	333	2,057
Louisiana	590	0	8	598
Texas	1,428	0	327	1,755
PAD District IV	0	0	5	5
Montana	0	0	5	5
PAD District V	1	242	111	354
California	(9)	0	5	6
Hawaii	1	242	105	348
All PAD Districts	5,813	8,399	8,542	21,154

(1) Less than 600 barrels

Note: Total may not equal sum of components due to independent rounding.
Sources: See Explanatory Notes on Data Collection and Estimation

Glossary



Definitions of Petroleum Products and Other Terms

Alcohol. The family name of a group of organic chemical compounds composed of carbon, hydrogen, and oxygen. The series of molecules vary in chain length and are composed of a hydrocarbon plus a hydroxyl group; $\text{CH-(CH)}_n\text{-OH}$. Alcohol includes methanol and ethanol.

Alkylation. A refinery process for chemically combining isoparaffin with olefin hydrocarbons. The product, alkylate, has high octane value and is blended with motor and aviation gasoline to improve the antiknock value of the fuel.

API Gravity. An arbitrary scale expressing the gravity or density of liquid petroleum products. The measuring scale is calibrated in terms of degrees API; it may be calculated in terms of the following formula:

$$\text{Deg API} = \frac{141.5}{\text{sp gr } 60^\circ\text{F}/60^\circ\text{F}} - 131.5$$

Aromatics. Hydrocarbons characterized by unsaturated ring structures of carbon atoms. Commercial petroleum aromatics are benzene, toluene, and xylene.

Asphalt. A dark-brown-to-black cement-like material, containing bitumens as the predominant constituents, obtained by petroleum processing. The definition includes crude asphalt as well as the following finished products: cements, fluxes, the asphalt content of emulsions (exclusive of water), and petroleum distillates blended with asphalt to make cutback asphalts. The conversion factor for asphalt is 5.5 barrels of 42 U.S. gallons per short ton.

ASTM. The acronym for the American Society for Testing and Materials.

Aviation Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation gasoline.

Aviation Gasoline, Finished. All special grades of gasoline for use in aviation reciprocating engines, as given in ASTM Specification D910 and Military Specification MIL-G-5572. Excludes blending components which will be used in blending or compounding into finished aviation gasoline.

Barrel. A volumetric unit of measure for crude oil and petroleum products equivalent to 42 U.S. gallons. This measure is used in most statistical reports. Factors for converting petroleum coke, asphalt and wax to barrels are given in the definitions for these products.

Barrels per Calendar Day. The maximum number of barrels of input that can be processed in a twenty-four hour period after making allowances for the following limitations: downstream limitations, environmental constraints, types and grades of inputs, planned and unplanned downtime, and types and grades of products.

Barrels Per Stream Day. The amount a unit can process running at full capacity under optimal crude and product slate conditions.

Bi-metallic. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of two metals (e.g., platinum, rhodium).

Butane. A normally gaseous paraffinic hydrocarbon, C₄H₁₀. It is extracted from natural gas or refinery gas streams. Butane is covered by ASTM Specification D1835 and Gas Processors Association Specification for commercial butane.

Isobutene. A saturated straight-chain hydrocarbon of butene. It is a colorless paraffinic gas that boils at a temperature of 10.9 degrees F. This classification includes mixtures of gases that contain 80 percent liquid volume or more isobutene. It is extracted from natural gas and refinery gas streams.

Normal Butane. A saturated straight-chain hydrocarbon of butane. It is a colorless paraffinic gas that boils at a temperature of 31.1 degrees F. This classification includes mixtures of gases that contain 80 percent or more normal butane.

Other Butenes. All butenes not included as normal butane or isobutene.

Butane-Propane Mixtures. Mixtures consisting exclusively of butane and propane that conform to ASTM Specification D1835 and Gas Processors Association Specification for commercial butane-propane mixtures. They are extracted from natural gas and refinery gas streams.

Butylene. An olefinic hydrocarbon, C₄H₈, recovered from refinery processes.

Catalytic Cracking. The refining process of breaking down the larger, heavier, and more complex hydrocarbon molecules into simpler and lighter molecules. Catalytic cracking is accomplished by the use of a catalytic agent and is an effective process for increasing the yield of gasoline from crude oil.

Catalytic Hydrocracking. A refining process for converting middle boiling or residual material to high-octane gasoline, reformer charge stock, jet fuel and/or high grade fuel oil. Hydrocracking is an efficient, relatively low temperature process using hydrogen and a catalyst.

Catalytic Hydrotreating. A process for treating petroleum fractions (e.g., distillate fuel oil and residual fuel oil) and unfinished oils (e.g., naphthas, reformer feeds and heavy gas oil) in the presence of catalysts and substantial quantities of hydrogen to upgrade their quality.

Catalytic Reforming. The use of controlled heat and pressure with catalysts to effect the rearrangement of certain hydrocarbon molecules without altering their composition appreciably; the conversion of low-octane

gasoline fractions into higher octane stocks suitable for blending into finished gasoline; also the conversion of naphthas to obtain a more volatile product of higher octane number.

Conventional. A term used to describe a type of catalyst. A catalytic process utilizing a catalyst comprised of a metal and a non-metal (e.g., platinum, alumina).

Coal. A generic term applied to carbonaceous rocks that were formed by the partial or complete decomposition of vegetation. These stratified carbonaceous rocks are either solid or brittle and are highly combustible. Includes lignite, bituminous coal, and anthracite coal which conform to ASTM Specification D388.

Crude Distillation. The refining process of separating crude oil components by heating and subsequent condensing of the fractions by cooling.

Crude Oil (Including Lease Condensate). A mixture of hydrocarbons that existed in liquid phase in underground reservoirs and remains liquid at atmospheric pressure after passing through surface separating facilities. Includes lease condensate and liquid hydrocarbons produced from tar sands, gilsonite and oil shale. Drip gas is also included, but topped crude oil (residual oil) and other unfinished oils are excluded. Liquids produced at natural gas processing plants and mixed with crude oil are likewise excluded where identifiable. Crude oil is considered as either domestic or foreign according to the following:

Domestic. Crude oil produced in the United States or from its outer continental shelf as defined in 43 U.S.C. 1331.

Foreign. Crude oil produced outside the United States.

Delayed Coking. A process to produce low Conradson carbon gas for catalytic cracking feedstock and for gasoline.

Distillate Fuel Oil. A general classification for one of the petroleum fractions produced in conventional distillation operations. It is used primarily for space heating, on-and-off-highway diesel engine fuel (including railroad engine fuel and fuel for agricultural machinery), and electric power generation. Includes as products known as No. 1, No. 2, and No. 4 fuel oils; No. 1, No. 2, and No. 4 diesel fuel.

No. 1 Fuel Oil. A light distillate fuel oil intended for use in vaporizing pot-type burners. ASTM Specification D396 specifies for this grade maximum distillation temperatures of 420 degrees F. at the 10-percent point and 550 degrees F. at the 90-percent point, and kinematic viscosities between 1.4 and 2.2 centistokes at 100 degrees F.

No. 2 Fuel Oil. A distillate fuel oil for use in atomizing-type burners for domestic heating or for moderate capacity commercial-industrial burner units. ASTM

Specification D396 specifies for this grade distillation temperatures at the 90-percent point between 540 degrees and 640 degrees F., and kinematic viscosities between 2.0 and 3.6 centistokes at 100 degrees F.

No. 1 and No. 2 Diesel Fuel Oils. Distillate fuel oils used in compression-ignition engines, as given by ASTM Specification D975:

No. 1-D. A volatile distillate fuel oil with a boiling range between 300-575 degrees F. and used in high-speed diesel engines generally operated under wide variations in speed and load. Includes type C-B diesel fuel used for city buses and similar operations. Properties are defined in ASTM Specifications D975.

No. 2-D. A gas oil type distillate of lower volatility with distillation temperatures at the 90-percent point between 540-640 degrees F. for use in high-speed diesel engines generally operated under uniform speed and load conditions. Includes Type R-R diesel fuel used for railroad locomotive engines, and Type T-T for diesel-engine trucks. Properties are defined in ASTM Specification D975.

No. 4 Fuel Oil. A fuel oil for commercial burner installations not equipped with preheating facilities. It is used extensively in industrial plants. This grade is a blend of distillate fuel oil and residual fuel oil stocks that conforms to ASTM Specification D396 or Federal Specification VV-F-815C; its kinematic viscosity is between 5.8 and 26.4 centistokes at 100 degrees F. Also included is No. 4-D, a fuel oil for low- and medium-speed diesel engines that conforms to ASTM Specification D975.

Eastern Hemisphere. That half of the earth east of the Atlantic Ocean which includes Europe, Asia, Africa, and Australia. The Hawaiian Foreign Trade Zone is in this hemisphere.

Electric Energy (Purchased). Electricity purchased for refinery operations that is not produced within the refinery complex.

Ethane. A normally gaseous paraffinic compound (C₂H₆) extracted from natural gas and refinery gas streams. "Ethane" includes any products containing 90 percent liquid volume or more ethane.

Ethane-Propene Mixtures. Mixtures of ethane and propane in which neither component is 90 percent or more of the liquid volume. It is extracted from natural gas and refinery gas streams.

Ethylene. An olefinic hydrocarbon, (C₂H₄) recovered from refinery or petrochemical processes.

Field Production. Represents crude oil production on leases, natural gas liquids production at natural gas processing plants, and new supply of other hydrocarbons and alcohol.

Fluid Coking. A thermal process utilizing the fluidized-solids technique for continuous conversion of heavy, low-grade oils into lighter products.

Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished aviation or motor gasoline.

Gas Oil. A liquid petroleum distillate having a viscosity intermediate between that of kerosene and lubricating oil. Derives its name from having originally been used in the manufacture of illuminating gas. Now supplies distillate-type fuel oils and diesel fuel, also cracked to produce gasoline.

Imported Crude Oil Burned as Fuel. The amount of foreign crude oil burned as a fuel oil, usually as residual fuel oil, without being processed as such. *Imported crude oil burned as fuel* includes lease condensate and liquid hydrocarbons produced from tar sand oil, gilsonite, and oil shale.

Isomerization. A refining process which alters the fundamental arrangement of atoms in the molecule. Used to convert normal butene into isobutene, an alkylation process feedstock, and normal pentane and hexane into isopentane and isohexane, high-octane gasoline components.

Kerosene. A petroleum distillate that boils at a temperature between 300-550 degrees F., that has a flash point higher than 100 degrees F. by ASTM Method D56, that has a gravity range from 40-46 degrees API, and that has a burning point in the range of 150-175 degrees F. Included are the two classifications recognized by ASTM D-3699: No. 1-K and No. 2-K, and all grades of kerosene called range or stove oil which have properties similar to No. 1 fuel oil, but with a gravity of about 43 degrees API and a maximum end-point of 625 degrees F. Kerosene is used in space heaters, cook stoves, and water heaters and is suitable for use as an illuminant when burned in wick lamps.

Kerosene-Type Jet Fuel. A quality kerosene product with an average gravity of 40.7 degrees API, a 10 percent distillation temperature of 400 degrees F. It is covered by ASTM Specification D1655 and Military Specifications MIL-T-5624L (Grades JP-5 and JP-8). A relatively low-freezing point distillate of the kerosene type; It is used primarily for commercial turbojet and turbo-prop aircraft engines.

Lease Condensate. A natural gas liquid recovered from gas well gas (associated and non-associated) in lease separators or natural gas field facilities. Lease condensate consists primarily of pentanes and heavier hydrocarbons.

Liquefied Petroleum Gases (LPG). Propane, propylene, butanes, butylene, butane-propane mixtures, ethane-propane mixtures, and isobutane produced at refineries or natural gas processing plants, including plants that fractionate raw natural gas plant liquids.

Liquefied Refinery Gases (LRG). Liquefied petroleum gases fractionated from refinery or still gases. Through compression and/or refrigeration they are retained in the liquid state. The reported categories are ethane and/or ethylene, propane and/or propylene, butane and/or butylene, butane-propane mixtures, and isobutane. Excludes still gases used for chemical or rubber manufacture which are reported as a petrochemical feedstock and also excludes liquefied gases ready for blending into gasoline which are reported as gasoline blending components. Liquefied refinery gases are reported for use as petrochemical feedstocks or other uses.

Lubricating Oils. A substance used to reduce friction between bearing surfaces. Petroleum lubricants may be produced either from distillates or residues. Other substances may be added to impart or improve certain required properties. *Lubricants* includes all grades of lubricating oils from spindle oil to cylinder oil and those used in greases. The three categories include Bright Stock, Neutral, and Other.

Bright Stock. A refined, high viscosity lubricating oil base stock that is usually made from residuum by a treatment such as deasphalting, acid treatment, or solvent extraction.

Neutral. A distillate lubricating oil base stock with a viscosity that is usually not above 550 Saybolt Universal Seconds (SUS) at 100 degrees F. It is prepared by a treatment such as hydrofining, acid treatment, or solvent extraction.

Other. A lubricating oil base stock used in finished lubricating oils and greases, including black, coastal, and red oils.

Middle Distillates. A general classification that includes distillate fuel oil and kerosene.

Miscellaneous Products. Includes all finished products not classified elsewhere, e.g., petroleum, absorption oils, ram-jet fuel, petroleum rocket fuels, synthetic natural gas feedstocks, specialty oils and medicinal oils.

Motor Gasoline Blending Components. Finished components in the gasoline range which will be used for blending or compounding into finished motor gasoline. Pool gasoline is included in this category.

Motor Gasoline, Finished. A complex mixture of relatively volatile hydrocarbons, with or without small quantities of additives, that have been blended to form a fuel suitable for use in spark-ignition engines. Specifications for motor gasoline, as given in ASTM Specification D439 or Federal Specification VV-G-1690B, include a boiling range of 122 degrees to 158 degrees F. at the 10-percent point to 385 degrees to 374 degrees F. at the 90-percent point and a Reid vapor pressure range from 9 to 15 psi. Motor gasoline includes finished leaded gasoline, finished unleaded gasoline, and gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Leaded Gasoline. Contains more than 0.05 gram of lead per gallon or more than 0.005 gram of phosphorus per gallon. The actual lead content of any given gallon, however, may vary as a function of the size of the producer and company according to specific Environmental Protection Agency waiver provisions. Premium and regular grades are included, depending on the octane rating. Includes leaded gasohol. Blendstock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Finished Unleaded Gasoline. Contains not more than 0.05 gram of lead per gallon and not more than 0.005 gram of phosphorus per gallon. Premium and regular grades are included, depending on the octane rating. Includes unleaded gasohol. Blend stock is excluded until blending has been completed. Alcohol that is to be used in the blending of gasohol is also excluded.

Gasohol. A blend of finished motor gasoline (leaded or unleaded) and alcohol (generally ethanol but sometimes methanol) in which 10 percent or more of the product is alcohol.

Motor Gasoline, Total. Includes finished leaded motor gasoline, finished unleaded motor gasoline, motor gasoline blending components, and gasohol.

Naphtha-Type Jet Fuel. A fuel in the heavy naphtha boiling range with an average gravity of 52.8 degrees API and 20 to 90 percent distillation temperatures of 290 degrees to 470 degrees F., meeting Military Specification MIL-T-5524L (Grade JP-4). JP-4 is used for turbojet and turboprop aircraft engines, primarily by the military. Excludes ram-jet and petroleum rocket fuels.

Natural Gas. A mixture of hydrocarbons and small quantities of various nonhydrocarbons existing in the gaseous phase or in solution with crude oil in underground reservoirs.

Natural Gas Field Facility. A field facility designed to process natural gas produced from more than one lease for the purpose of recovering condensate from a stream of natural gas; however, some field facilities are designed to recover propane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

Natural Gas Plant Liquids. Natural gas liquids recovered from natural gas in gas processing plants, and in some situations, from natural gas field facilities. Natural gas liquids extracted by fractionators are also included. These liquids are defined according to the published specifications of the Gas Processors Association and the American Society for Testing and Materials, and are classified as follows: Ethane, propane, ethane-propane mix, isobutane, butane, natural gasoline, etc., and to control the quality of natural gas to be marketed.

motor gasoline, finished aviation gasoline, special naphthas, kerosene, distillate fuel oil, and miscellaneous products).

Natural Gasoline and Isopentane. A mixture of hydrocarbons, mostly pentanes and heavier, extracted from natural gas, that meets vapor pressure, end-point, and other specifications for natural gasoline set by the Gas Processors Association. Includes Isopentane which is a saturated branch-chain hydrocarbon, C₅H₁₂, obtained by fractionation of natural gasoline or isomerization of normal pentane.

OPEC. The acronym for the Organization of Petroleum Exporting Countries, oil-producing and exporting countries that have organized for the purpose of negotiating with oil companies on matters of oil production, prices, and future concession rights. Current members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, United Arab Emirates, and Venezuela.

Operable Distillation Capacity. The maximum amount of input that can be processed by a crude oil distillation unit in a 24-hour period, making allowances for processing limitations due to types and grades of inputs, limitations of downstream facilities, scheduled and unscheduled downtimes, and environmental constraints. Includes any shutdown capacity that could be placed in operation within 90 days.

Other Hydrocarbons. Materials received by a refinery and consumed as raw materials. Includes hydrogen, coal tar derivatives, gilsonite, and natural gas received by the refinery for reforming into hydrogen. Natural gas to be used as fuel is excluded.

Petrochemical Feedstock Use. Chemical feedstocks derived from petroleum, principally for the manufacture of chemicals, synthetic rubber, and a variety of plastics. The categories reported are *Naphtha-less than 400 degrees F. end-point* and *Other oils-over 400 degrees F. end-point*.

Naphtha-Less Than 400 Degrees F. End-Point. A naphtha with an end point of less than 400 degrees F. that is reported as used as a petrochemical feedstock.

Other Oils-Over 400 Degrees F. End-Point. Oils with an end point over 400 degrees F. that is reported as used as a petrochemical feedstock.

Petroleum Coke. A residue, the final product of the condensation process in cracking. This product is reported as marketable coke or catalyst coke. The conversion factor is five barrels of 42 U.S. gallons per short ton.

Marketable Coke. Those grades of coke produced in delayed or fluid cokers which may be recovered as relatively pure carbon. This green coke may be sold or further purified by calcining.

Catalyst Coke. In many catalytic operations (i.e., catalytic cracking) carbon is deposited on the catalyst, thus deactivating the catalyst. The catalyst is reactivated by burning off the carbon, which is used as a fuel in the refinery process. This carbon or coke is not recoverable in a concentrated form.

Petroleum Products. Petroleum products are obtained from the processing of crude oil (including lease condensate), natural gas, and other hydrocarbon compounds. Petroleum products include unfinished oils, natural gasoline and isopentane, plant condensate, unrefined stream, liquefied petroleum gases, aviation gasoline, motor gasoline, naphtha-type jet fuel, kerosene-type jet fuel, kerosene, distillate fuel oil, residual fuel oil, naphtha less than 400° F. end-point, other oils-over 400° F. end-point, special naphthas, lubricants, waxes, petroleum cokes, asphalt, road oil, still gas, and miscellaneous products.

Petroleum Refinery. An installation that manufactures finished petroleum products from crude oil, unfinished oils, natural gas liquids, other hydrocarbons, and alcohol.

Plant Condensate. One of the natural gas liquids, mostly pentanes and heavier hydrocarbons, recovered and separated as liquids at gas inlet separators or scrubbers in processing plants.

Primary Stocks. Stocks of crude oil or petroleum products held in storage at (or in) leases, refineries, natural gas processing plants, pipelines, tank farms, end bulk terminals that can store at least 50,000 barrels of petroleum products or that can receive petroleum products by tanker, barge, or pipeline. Crude oil that is in transit from Alaska, or that is stored on Federal leases or in the Strategic Petroleum Reserve is included. *Primary Stocks* excludes stocks of foreign origin that are held in bonded warehouse storage.

Propene. A normally gaseous paraffinic compound, C₃H₆, which includes all products covered by NGPA Specification for commercial end HD-5 propene and ASTM Specification D1836. It is used primarily as a fuel and as a petrochemical feedstock.

Propylene. An olefinic hydrocarbon, C₃H₆, recovered from refinery or petrochemical processes.

Residual Fuel Oil. The topped crude of refinery operation which includes No. 5 and No. 6 fuel oils as defined in ASTM Specification D396 and Federal Specification VV-F-815C, Navy Special fuel oil as defined in Military Specification MIL-F-859E including Amendment 2 (NATO Symbol F-77), and Bunker C fuel oil. Residual fuel oil is used for the production of electric power, space heating, vessel bunkering, and various industrial purposes. Includes imported crude oil to be burned as a fuel.

Road Oil. Any heavy petroleum oil, including residual asphaltic oil used as a dust palliative and surface treatment on roads and highways. It is generally produced in

six grades from 0, the most liquid, to 5, the most viscous.

Special Naphthas. All finished products within the gasoline range that are used as paint thinners, cleaners, or solvents. These products are refined to a specified flash point and have a boiling range of 90 degrees to 220 degrees F. *Special naphthas* includes all commercial hexane and cleaning solvents conforming to ASTM Specifications D1836 and D484, respectively. Naphthas to be blended or marketed as motor gasoline or aviation gasoline or that are to be used as petrochemical and synthetic natural gas (SNG) feedstocks are excluded.

Steam (Purchased). Steam, purchased for use by a refinery, that was not generated from within the refinery complex.

Still Gas (Refinery Gas). Any form or mixture of gas produced in refineries by distillation cracking, reforming, and other processes. The principal constituents are methane, ethane, ethylene, butane, butylene, propene, propylene, etc. Still gas is reported for petrochemical feedstock use and/or refinery fuel use.

Petrochemical Feedstock Use. Includes all refinery streams which are used by chemical or rubber manufacturing operations for further processing, less the amount of such streams returned to the source refinery. Finished petrochemical products are not included. For example, polyethylene, butadiene, etc., are considered petrochemical products; therefore, only their feed-stock equivalents are included.

Fuel Use. All other still gas.

Strategic Petroleum Reserve (SPR). Stocks (currently, only crude oil) maintained by the Federal Government for use during periods of major supply interruption.

Thermal Cracking. A refining process in which heat and pressure are used to break down, rearrange, or combine hydrocarbon molecules. Thermal cracking is used to increase the yield of gasoline obtainable from crude oil.

Unfinished Oils. Includes all oils requiring further processing, except those requiring only mechanical blending.

Unrefined Streams. Mixtures of unsegregated natural gas liquid components excluding those included in plant condensate. This product is extracted from natural gas.

Vacuum Distillation. Distillation under reduced pressure (less the atmospheric) which lowers the boiling temperature of the liquid being distilled. This technique, with its relatively low temperatures, prevents cracking or decomposition of the charge stock.

Viebreaking. A thermal cracking process in which heavy vacuum-still bottoms produced on the primary

distillation unit are cracked to increase production of distillate products.

Wax. A solid or semi-solid material derived from petroleum distillates or residues by such treatments as chilling, precipitating with a solvent, or de-oiling. It is light-colored, more-or-less translucent crystalline mass, slightly greasy to the touch, consisting of a mixture of solid hydrocarbons in which the paraffin series predominates, includes all marketable wax whether crude scale or fully refined. The three grades included are microcrystalline, crystalline-fully refined, and crystalline-other. The conversion factor is 260 pounds per 42-gallon barrel.

Microcrystalline Wax. Wax extracted from certain petroleum residues having a finer and less apparent crystalline structure than paraffin wax and having the following physical characteristics:

Penetration at 77 degrees F. (D-1321)-60 maximum.
Viscosity at 210 degrees F. in Saybolt Universal Sec-

onds (SUS) (D-88)-60 SUS (10.22 centistokes) minimum to 150 SUS (31.8 centistokes) maximum. Oil content (D-721)-5 percent minimum.

Crystalline-Fully Refined Wax. A light-colored paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D-88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D-721)-0.5 percent maximum. Other + 20 color, Saybolt minimum.

Crystalline-Other Wax. A paraffin wax having the following characteristics:

Viscosity at 210 degrees F. (D-88)-59.9 SUS (10.18 centistokes) maximum. Oil Content (D-721)-0.51 percent minimum to 15 percent maximum.

Western Hemispheres. That half of the earth that includes North and South America and the surrounding waters.

Bureau of Mines Petroleum Refining Districts and PAD Districts

The following are the Bureau of Mines petroleum refining districts which make up the PAD districts.

PAD District I

East Coast: District of Columbia and the States of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Florida, and the following counties of the State of New York: Cayuga, Tompkins, Chemung and all counties east and north thereof. Also the following counties in the State of Pennsylvania: Bradford, Sullivan, Columbia, Montour, Northumberland, Dauphin, York, and all counties east thereof.

Appalachian #1: The State of West Virginia and those parts of the States of Pennsylvania and New York not included in the East Coast District.

PAD District II

Appalachian #2: The following counties of the State of Ohio: Erie, Huron, Crawford, Marion, Delaware, Franklin, Pickaway, Ross, Pike, Scioto, and all counties east thereof.

Indiana—Illinois—Kentucky: The States of Indiana, Illinois, Kentucky, Tennessee, Michigan, and that part of the State of Ohio not included in the Appalachian District.

Minnesota—Wisconsin—North and South Dakota: The States of Minnesota, Wisconsin, North Dakota, and South Dakota.

Oklahoma—Kansas—Missouri: The States of Oklahoma, Kansas, Missouri, Nebraska, and Iowa.

PAD District III

Texas Inland: The State of Texas except the Texas Gulf Coast District.

Texas Gulf Coast: The following counties of the State of Texas: Newton, Orange, Jefferson, Jasper, Tyler, Hardin, Liberty, Chambers, Polk, San Jacinto, Montgomery, Harris, Galveston, Waller, Fort Bend, Brazoria, Wharton, Matagorda, Jackson, Victoria, Calhoun, Refugio, Aransas, San Patricio, Nueces, Kleberg, Kenedy, Willacy, and Cameron.

Louisiana Gulf Coast: The following Parishes of the State of Louisiana: Vernon, Rapides, Avoyelles, Pointe Coupee, West Feliciana, East Feliciana, Saint Helena, Tangipahoa, Washington, and all Parishes south thereof. Also the following counties of the State of Mississippi: Pearl River, Stone, George, Hancock, Harrison, and Jackson. Also the following counties of the State of Alabama: Mobile and Baldwin.

North Louisiana—Arkansas: The State of Arkansas and those parts of the States of Louisiana, Mississippi, and Alabama not included in the Louisiana Gulf Coast District.

New Mexico: The State of New Mexico.

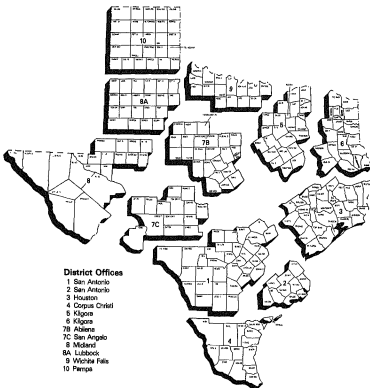
PAD District IV

Rocky Mountain: The States of Montana, Idaho, Wyoming, Utah, and Colorado.

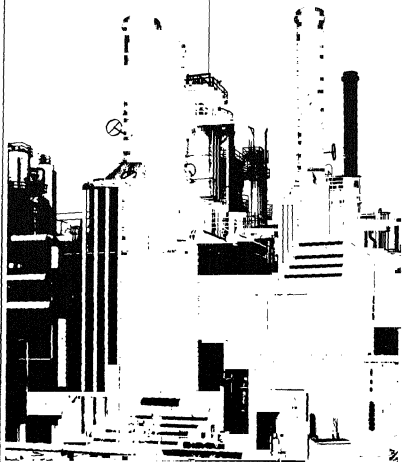
PAD District V

West Coast: The States of Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

District Map Oil and Gas Division Railroad Commission of Texas



Explanatory Notes



Note 1: Data Collection Methodology

Background

Beginning in January 1983, the Energy Information Administration (EIA) unified its petroleum supply data collection activities into the Petroleum Supply Reporting System (PSRS). The PSRS represents a family of data collection survey forms, data processing systems and publication systems that have been consolidated to achieve comparability and consistency throughout. The primary focus of the consolidation has been to revise the weekly and monthly survey reporting forms to assure consistency in form layout, preparation instructions, and definitions. As a result, a new set of survey forms were implemented in January 1983. The following are the new form numbers and their corresponding predecessor forms:

New Form Number	Name	Old Form Number
EIA-800	Weekly Refinery Report	EIA-161
EIA-801	Weekly Bulk Terminal Report	EIA-162
EIA-802	Weekly Product Pipeline Report	EIA-163
EIA-803	Weekly Crude Oil Stocks Report	EIA-164
EIA-804	Weekly Imports Report	EIA-165
EIA-805	Weekly Shipments from Puerto Rico to the United States Report	—
EIA-810	Monthly Refinery Report	EIA-87
EIA-811	Monthly Bulk Terminal Report	EIA-88
EIA-812	Monthly Product Pipeline Report	EIA-89
EIA-813	Monthly Crude Oil Report	EIA-90
ERA-80	Monthly Imports Report	ERA-60
EIA-815	Monthly Shipments from Puerto Rico to the United States Report	FEA-P133-M-0
EIA-818	Monthly Natural Gas Liquids Report	EIA-84
EIA-817	Monthly Tanker and Barge Movement Report	EIA-170

Forms EIA-800 through 805 comprise the Weekly Petroleum Supply Reporting System (WPSRS). This system is designed to collect basic refinery operations and product stock data for major products on a weekly basis. Data from the WPSRS are published in the *Weekly Petroleum Status Report (WPSR)* and are also used to calculate the preliminary statistics in the "Summary Statistics" section of the *Petroleum Supply Monthly*

(PSM). A description of the WPSRS survey forms follows in Note 1.1.

Forms EIA-810-813, 815-817 and ERA-60 comprise the Monthly Petroleum Supply Reporting System (MPSRS). These surveys collect detailed refinery operations data, refinery, bulk terminal and pipeline stocks data, crude oil and petroleum product imports data and movements of petroleum products and crude oil between PAD Districts data. These surveys are the primary source of data for the "Summary Statistics" and "Detailed Statistics" sections of the PSM. A description of MPSRS survey forms follows in Note 1.2.

Data are also obtained in magnetic tape form from the Bureau of the Census on a monthly basis. These tapes contain aggregated import and export statistics that are used in the preparation of the PSM. A description of the Census data follows in Note 1.3.

Note 1.1: Weekly Petroleum Supply Reporting System (WPSRS)

Background

The EIA first began publishing weekly petroleum supply statistics in April 1979 in response to the Iranian oil crisis. Initially, the published data were taken from the American Petroleum Institute (API) *Weekly Statistical Bulletin*. However, in January 1980 the EIA began to publish weekly statistics from its own surveys, with the exception of imports statistics which the EIA did not begin collecting until June 1980.

The weekly surveys collect data comparable to those collected on a monthly basis. Selected petroleum companies report weekly data to the EIA on crude oil and petroleum product stocks, refinery inputs and production, and crude oil and petroleum product imports. On Forms EIA-800 through EIA-803, companies report data on a custody basis. On the Form EIA-804, the importer of record reports each shipment entering the United States. On Form EIA-805, a company shipping unfinished oils and finished petroleum products into the United States from Puerto Rico reports each shipment. Current weekly data and the most recent monthly data are used to estimate the totals that are published in the *Weekly Petroleum Status Report*.

Sample Frame

The sample of companies that report weekly is selected from the universe of companies that report on the comparable monthly surveys. Sampled companies report data only for facilities in the 50 States and District of Columbia.

The sample for each survey is taken from the following universe:

EIA-800: Based on the EIA-810 universe, which includes all petroleum refineries in the United States and

its territories, industrial facilities that have crude oil distillation capacity and produce some refined petroleum products, and plants that produce finished motor gasoline through mechanical blending. The selected sample size is 215.

EIA-801: Based on the EIA-811 universe, which includes all bulk terminal facilities in the United States and its territories that have either a total bulk storage capacity of 50,000 barrels or more, or that receive petroleum products by tanker, barge, or pipeline. The selected sample size is 83.

EIA-802: Based on the EIA-812 universe, which includes all petroleum product pipeline companies in the United States and its territories that transport refined petroleum products, including interstate, intrastate and intracompany pipeline movements. Pipeline companies that transport only natural gas liquids are not included in the EIA-802 frame. Only those pipeline companies that transport products covered in the weekly survey are included. The selected sample size is 65.

EIA-803: Based on the EIA-813 universe, which consists of all companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-804: Based on the EIA-814 universe, which includes all importers of record of crude oil and petroleum products into the United States and Puerto Rico. The selected sample size is 65.

EIA-805: Based on the EIA-815 universe, which includes all shippers of unfinished oils and petroleum products into the United States from Puerto Rico. Four companies report.

Sampling Method

The cut-off method is the sampling procedure used for all weekly surveys except the EIA-802, which uses the monthly universe in its entirety. In the cut-off method, companies are ranked from largest to smallest on the basis of the quantities reported during some previous 12-month period. Companies are chosen for the sampling, beginning with the largest and adding companies until the total sample covers 90 percent of the total for the previous time period for each product published in the *Weekly Petroleum Status Report*.

Collection Methods

Data are collected by mail, mailgram, telephone, Telex, and Telefax on a weekly basis. The report period closes each Friday at 7 a.m. All canvassed firms and terminal operations companies must file by 5 p.m. on the following Monday.

Estimation and Imputation

After company reports have been checked and entered into the weekly data base, weekly totals for given products are estimated by using the following formula.

The total reported by all companies for the most recent month (M_t) is divided by the amount reported by the sample of companies for the most recent month (M_s). The result is multiplied by the amount reported by the sample of companies for the current week (W_s). The answer, W_t , is an estimate of the amount that would have been reported by all companies for the current week if all companies reported each week.

$$W_t = \frac{M_t}{M_s} (W_s)$$

This procedure is used to estimate total weekly inputs to refineries and production.

To estimate stocks of finished products, the preceding procedure is followed separately for refineries, bulk terminals, and pipelines. Total estimates are formed by summing over establishment types.

Weekly imports data are highly variable on a company-by-company basis or a week-by-week basis. Therefore, an exponentially smoothed ratio has been developed. The estimate of weekly imports is the sum of the smoothed ratio multiplied by the weekly values and estimates for shipments from Puerto Rico. Imports of other oils includes an adjustment from Census data for unlicensed products because of coverage differences between the monthly imports data and Census data.

Explicit imputation is done for companies which do not respond in a given week. The imputed values are exponentially smoothed means of recent reports from the specific company.

Response Rates

The response rate for the published estimates is usually between 95 and 96 percent.

Note 1.2: Monthly Petroleum Supply Reporting System (MPSRS)

Background

The MPSRS was implemented in January 1993 as the result of an extensive effort to integrate the collection and processing of petroleum supply data that have been collected on other survey forms for many years. The collection of monthly petroleum supply statistics began as early as 1918 when the Bureau of Mines (BOM) began collecting data on refinery operations and crude oil stocks and movements. The collection systems

were further expanded to include natural gas plant liquids production and storage in 1925, imports of crude oil and petroleum products and storage and movements of petroleum products in 1959, and tanker and barge movements of crude oil and petroleum products in 1966. Since their inception, each survey has undergone numerous changes, but the MPSRS is the first effort to make them all consistent and comparable.

Respondent Frame

EIA-810: All petroleum refineries and plants that produce finished motor gasoline through the mechanical blending of liquids which are operated or controlled in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, the Hawaiian Foreign Trade Zone, and Guam. Approximately 313 respondents report on the EIA-810.

EIA-811: All bulk terminal facilities in the 50 States and the District of Columbia, Puerto Rico, and the Virgin Islands that (a) have a total bulk storage capacity of 50,000 barrels or more and/or (b) receive petroleum products by tanker, barge, or pipeline, regardless of ownership of the material. Approximately 328 respondents report on the EIA-811.

EIA-812: All products pipeline companies that carry petroleum products (including interstate, intrastate and intracompany pipelines) in the 50 States and the District of Columbia. Approximately 94 respondents report on the EIA-812.

EIA-813: All companies which carry or store crude oil of 1,000 barrels or more in the 50 States, and the District of Columbia. Included are gathering and trunk pipeline companies (including interstate, intrastate, and intracompany pipelines), crude oil producers, terminal operators, storers of crude oil, and companies transporting Alaskan crude oil by water.

EIA-815: All licensed importers and exporters of record shipping petroleum products from Puerto Rico into the 50 States and the District of Columbia.

Import data from the ERA-60 and EIA-815 are integrated into the import statistics reported in the PSM.

EIA-816: All operators of facilities designed to extract liquid hydrocarbons from natural gas stream (natural gas processing plants) or to separate a hydrocarbon stream into its component products, i.e., propane, butane, natural gasoline, etc. (fractionators). Approximately 990 respondents report on the EIA-816.

EIA-817: All known companies and plants that have custody of crude oil and petroleum products transported by tanker and barge between PAD Districts or between PAD Districts and the Panama Canal. There are about 50 respondents.

ERA-60: All licensed importers and exporters of record importing crude oil and petroleum products into the

United States and Puerto Rico. The respondent universe consisted of approximately 1,100 firms as of July 31, 1982. However, only a selected 250 importers must report each month regardless of import activity. All others must report only for a month in which they actually had imports. The respondent universe for this survey is updated whenever an import license is granted by the Office of Oil Imports of the ERA.

EIA utilizes a number of sources and methods to maintain the survey respondent lists. On a regular basis, survey managers review industry publications such as the *Oil and Gas Journal* and *LP Gas Airmetec* for information on facilities or companies going into operation or closing down. These are augmented by articles in newspapers, letters from respondents indicating changes in status and information received from survey systems operated by other offices.

Periodically an extensive survey study is conducted to completely refresh the frame. This involves consolidating information from every known source including State agencies, federal agencies (e.g., EPA, Corps of Engineers, Census Bureau, etc.), and private industry directories. The effort also includes the evaluation of the impact of potential frame changes on the historical time series of data published from these respondents. The results of this frame study are usually implemented in January to provide a full year under the same frame.

Collection Methods

The data for all of the MPSRS surveys are collected monthly. Completed forms are required to be postmarked by the 20th day following the end of the report month, with the exception of the EIA-815 and ERA-60 which are due 15 work days following the end of the report month. Telephone follow-up calls are made to nonrespondents prior to the publication deadline, for their data. An automated mailing list is maintained and is used to monitor receipt of the forms.

Imputing Missing Data

Imputation is performed only for nonresponding companies that submitted reports the previous month. For such companies, previous monthly values are used for current values. The previous month's ending stocks value is used for both the current month's beginning stocks and the current month's ending stocks. In the event that the previous month's data were estimated, the respondent is contacted and requested to submit estimates, if necessary, to be followed by submission of actual data. Data for nonrespondents on the EIA-815 and 817, and ERA-60 are not imputed.

Response Rates

As of the filing deadline, the response rates of the EIA-810 through EIA-813 respondents is over 90 per-

cent. The response rate for the EIA-816 is over 85 percent and for the EIA-817 it is 98 percent. All companies that have not responded are contacted by telephone. Although data are taken by telephone to expedite processing, a certified submission is still required. Names of companies that fail to file for 2 consecutive months are forwarded for further noncompliance action.

In July 1982, the ERA-60 survey had a response rate of 98 percent by the filing deadline. The universe was 1,100 firms at that time. (Because this is a dynamic survey, the universe is constantly changing.) Standard follow-up of nonrespondents is made to insure that all reports are received, since data are not imputed for nonrespondents. In addition, response is cross-checked with response on the Petroleum Licensing Decrementation System (PLDS), a listing of each month's importers. The response rate is generally 98 to 99 percent by the time the data are first published.

Note 1.3: Census Import (IM-145) and Export (EM-522 and EM-594) Data

Background

Each month the EIA purchases magnetic tapes of aggregated import and export statistics from the Bureau of the Census. These data provide the only source of export statistics and are used to augment the import data collected by the EIA. Export statistics and import data from the Census tapes on liquefied petroleum gases, bonded ships bunkers and military offshore use are published in the PSM.

Import Statistics (IM-145)

Coverage

The import statistics reflect both government and non-government imports of merchandise from foreign countries into the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico), without regard to whether or not a commercial transaction is involved. In general, the statistics record the physical movement of merchandise into the United States from foreign countries, with the exception of the following types of transactions that are excluded from the statistics:

1. Merchandise in-transit through the United States, when documented with Customs as an in-transit movement.
2. Shipments from anywhere to U.S. possessions and shipments from U.S. possessions to the United States. (U.S. possessions include Puerto Rico, the Virgin Islands, Guam, and American Samoa.)
3. U.S. merchandise that was held in foreign countries by the U.S. Armed Forces and is returned to the United States for the use of the Armed Forces.

Source of Import Information

The official U.S. import statistics are compiled by the Bureau of the Census from copies of the import entry and warehouse withdrawal forms that importers are required by law to file with Customs officials (Customs Forms 7501, 7505, and 7506).

Imported petroleum is reported as *Imports for Consumption*. Imports for consumption are a combination of entries for immediate consumption and withdrawals from warehouses for consumption. With certain exceptions as indicated above, these data generally reflect the total of commodities entered into U.S. consumption channels.

Country and Area of Origin

The country reported in the statistics as the country of origin is defined as the country where the merchandise was grown, mined, or manufactured. In instances where the country of origin cannot be determined, the transactions are credited to the country of shipment.

Export Statistics (EM-522 and EM-594)

Coverage

The export statistics reflect both government and non-government exports of domestic and foreign merchandise from the U.S. Customs territory (the 50 States, the District of Columbia, and Puerto Rico) to foreign countries, without regard to whether or not the exportation involves a commercial transaction. In general, the statistics record the physical movement of merchandise out of the United States to foreign countries, with the exception of the following types of transactions:

1. All shipments from U.S. possessions, regardless of whether the shipments are sent to the United States, to other U.S. possessions, or to foreign countries.
2. Merchandise shipped in transit through the United States from one foreign country to another, when documented as such with U.S. Customs.
3. Bunker fuels and other supplies and equipment for use on departing vessels, planes, or other carriers engaged in foreign trade.

Source of Export Information

The official U.S. export statistics are compiled by the Bureau of the Census primarily from copies of Shipper's Export Declarations. Exporters are required to file Shipper's Export Declarations with Customs officials. The only exceptions are those exporters who have been authorized to submit data directly to the Bureau of Census on magnetic tape, punched cards, or monthly Shipper's Summary Export Declarations.

Country and Area of Destination

The country of destination is defined as the country of ultimate destination or the country where the goods are to be consumed, further processed, or manufactured, as known to the shipper at the time of exportation. If the shipper does not know the country of ultimate destination, the shipment is credited to the last country to which the shipper knows that the merchandise will be shipped in the same form as it was when exported.

Note 2: Supply

The components of petroleum supply are field production, refinery production, imports, and stock withdrawal or addition:

Field Production is the sum of crude oil production (including lease condensate), natural gas processing plant production, and new supply (field production) of other liquids used by refineries.

Crude oil production is estimated based on data received from State conservation and revenue agencies. For further explanation, see Explanatory Note 3.

Field production of natural gas plant liquids (NGPL), including finished petroleum products, is reported monthly on survey Form EIA-816, *Monthly Natural Gas Liquids Report*. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. For survey description and other detail, see Explanatory Note 1.2.

Refinery Production of LRGs, ethane, and finished petroleum products is reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published production of these products equals refinery production minus refinery input. Refinery production of unfinished oils and of motor and aviation gasoline blending components appears on a net basis under refinery input. Negative production will occur when the amount of a product produced during the month is less than the amount of that same product that is reprocessed (input) or reclassified to become another product during the same month. It should also be noted that refineries do not export production of crude oil, natural gasoline, isopentane, unfractionated stream, plant condensate, or other hydrocarbons.

Imports of crude oil and petroleum products are reported monthly on Form EIA-80, *Report of Oil Imports into the United States and Puerto Rico*, and Form EIA-815, *Shipments of Refined Products (Including Unfinished Oil) from Puerto Rico to the United States*. In addition, the Census Bureau Tabulation IM-145 summarizes import data from Customs import declarations reported on Customs Forms 7501 and 7505. The most prominent difference between the EIA and Census systems appears in imports of liquefied petroleum gases

(LPG), where the Census data show a much higher level of imports than EIA data. This occurs because the ERA-80 respondent frame was built by monitoring importers of licensed products and LPGs are not licensed products. Therefore, respondents that import only LPGs have not been identified, and do not report these imports to the Department of Energy. Since these importers are required to file form 7501 with the U.S. Customs Service, EIA obtains data on imports of LPGs from Census Tabulation IM-145. Additional data taken from the IM-145 are relatively small quantities of naphtha- and kerosene-type jet fuels, distillate fuel oils, and residual fuel oils withdrawn from bonded storage for use in international trade and for military offshore use. Even though these duty-free fuels are stored on United States shores, they did not enter the United States for domestic consumption and therefore are not included in the ERA-80 reporting system.

Stock Withdrawal (+) or Addition (-) is calculated by subtracting stocks at the end of the month from stocks at the beginning of the same month. (Note: The beginning stocks of one month are equal to the ending stocks of the previous month.) A positive result (+) would represent a withdrawal from stocks and an increase in petroleum supplies distributed for domestic consumption. A negative result (-) would represent a buildup of stocks and a reduction in the amount of petroleum supplies distributed for domestic consumption. For a description of survey forms used to make stock withdrawal or addition calculations see Explanatory Note 5.

Unaccounted-for Crude Oil is a balancing item that represents the difference between crude oil supply and disposition.

Crude oil supply is the sum of field production, imports and stock withdrawals or additions. Crude oil disposition is the sum of exports, refinery input, losses and product supplied. Unaccounted-for crude oil is calculated by subtracting crude oil supplies from crude oil disposition. A positive result indicates that refiners and exporters reported use of more crude oil than was reported to have been available to them. (This occurs, for example, when imports are undercounted due to late reporting or other problems.) A negative result would indicate that more crude oil was reported to have been supplied to refiners and exporters than they reported used.

Note 3: Domestic Crude Oil Production

Data for the Crude Oil Production System (COPS) are reported to the Department of Energy by each of the State conservation agencies, which collect crude oil production values for tax purposes. The U.S. Geological Survey reports the volume of crude oil that is produced offshore in Federally-owned waters. With the exception of ten State conservation agencies, all of these reports are received monthly. After each calendar year, these monthly numbers are updated using the annual reports

from the State conservation agencies and the U.S. Geological Survey. The ten States that do not report monthly values are Indiana, Kentucky, Missouri, Arkansas, Utah, New York, Ohio, Pennsylvania, West Virginia, and Wyoming. Monthly values are estimated for these States using the individual linear trends of their historical annual crude oil production values.

There is a time lag of approximately 4 months between the end of the reporting month and the time when the monthly COPS information becomes available. Table 11 of this publication provides information on crude oil production for the most recent month for which COPS values are available. In order to present more timely crude oil production values, the EIA's Dallas Field Office prepares a series of State level estimates which are based on historical production patterns and are summed to obtain the monthly crude oil production values shown in the summary statistics of this publication.

The individual State level estimates are either exponential curve fitted projections based on recent data or are constant level projections based on the average production rate during a recent time period. In some cases, adjustments are made to these estimates based on additional information on expected changes in production rates supplied by a State agency, a trade association, or an individual field operator.

Note 4: Disposition

The components of petroleum disposition are crude oil losses, refinery inputs, exports, and products supplied for domestic consumption.

Crude Oil Losses is the sum of crude oil losses at refineries. Crude oil losses at refineries are reported on Form EIA-810, *Refinery Report*.

Refinery inputs of crude oil, natural gas plant liquids, and other liquids are reported monthly on survey Form EIA-810, *Monthly Refinery Report*. Published inputs of unfinished oils and of motor and aviation gasoline blending components equal refinery input minus refinery output. Refinery inputs of finished petroleum products are reported on a net basis under refinery production.

Exports of crude oil and petroleum products are compiled from Census Bureau tabulations EM-522 and EM-584. Exports include crude oil shipments to Puerto Rico, the Virgin Islands, and the Hawaiian Foreign Trade Zone, which are obtained from refinery receipts reported on Form EIA-810, by refineries located in these places.

Product supplied for each product is calculated by summing field production plus refinery production, plus imports, plus stock withdrawal or minus stock addition, minus crude oil losses (plus net receipts when calculated on a PAD District basis), minus re-

finery input, minus exports. This formula ensures that total disposition equals total supply.

Products supplied indicates those quantities of petroleum products supplied for domestic consumption. Occasionally, the result for a product is negative because total disposition of that product exceeds total supply. Negative product supplied may occur for a number of reasons: (1) product reclassification has not been reported, (2) data were misreported or reported late, (3) in the case of calculations on a PAD District basis, the figure for net receipts was inaccurate because the coverage of interdistrict movements was incomplete.

Product supplied for crude oil is the sum of crude oil burned on leases and by pipelines as fuel oil. These data are reported on EIA-813, *Monthly Crude Oil Report*. Prior to January 1983, crude oil burned on leases and by pipelines as fuel oil were reported as either distillate or residual fuel oil and included in product supplied for these products.

Note 5: Stocks

Primary stocks of crude oil are the sum of ending stocks reported monthly on Form EIA-810, *Monthly Refinery Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Crude oil held in the Strategic Petroleum Reserve is included unless otherwise noted. Alaskan crude oil in transit is also included. Stocks of crude oil are also reported weekly on Form EIA-800, *Weekly Refinery Report*, and on Form EIA-803, *Weekly Crude Oil Stocks Report*. Primary stocks of petroleum products are summed from data reported on Form EIA-816, *Monthly Natural Gas Liquids Report*, Form EIA-811, *Monthly Bulk Terminal Report*, and on Form EIA-812, *Monthly Product Pipeline Report*. Primary stocks of petroleum products do not include either secondary stocks held by dealers and jobbers or stocks held by consumers. Petroleum product stocks are also reported weekly on Form EIA-800, *Weekly Refinery Report*, Form EIA-801, *Weekly Bulk Terminal Report*, and Form EIA-802, *Weekly Crude Oil Stocks Report*. For survey descriptions and other details, see Explanatory Notes 1.1-1.5.

Note 6: Average Stock Levels

The graphs displaying monthly stock levels of crude oil, motor gasoline, distillate fuel oil, residual fuel oil, liquefied petroleum gases, and other products provide the user with recent data as well as a summary of data from January through December or from July through June for the most recent 3-year period. This summary takes the form of an average range that includes seasonal variation determined from a longer time period. The

average range represents the historical pattern; it is not a forecast.

These curves are updated semiannually (on April 1 and October 1), by basing the average ranges on a more recent time period. Each 3-year data series is adjusted by dropping the first 6 months and including the most recent 6 months.

For each data series, the monthly seasonal factors are estimated by means of a seasonal adjustment technique developed at the Bureau of the Census (Census X-11). The seasonal factors are assumed to be stable (i.e., unchanging from year to year) and additive. The series is deseasonalized by subtracting the seasonal factor for the appropriate month from the reported stock levels. The intent of deseasonalization is to remove only seasonal variation from the data. Thus, a deseasonalized series would contain the same trends and irregularities as the original data. For crude oil stocks, the derived seasonal factors are very small relative to crude oil stock levels. Therefore, the seasonal factors for distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products are derived using monthly data from 1974-1990. For motor gasoline, the seasonal factors are based on monthly data from 1975, 1976, 1978, 1979 and 1980. In 1977, there was virtually no seasonal behavior in motor gasoline stocks. Monthly stock levels stayed at the same high level for the entire year. In addition, the seasonal patterns in 1973, 1974 and 1977 were not representative of the recent past, and these years were not used in the determination of seasonal patterns for motor gasoline stocks. Because of these differences in the year-to-year seasonal fluctuation of motor gasoline, the evidence for the illustrated seasonal patterns for crude oil, distillate fuel oil, residual fuel oil, liquefied petroleum gases and other products is stronger than is the evidence for the illustrated seasonal patterns for motor gasoline.

In some cases, these seasonal patterns do not show a smooth transition from month to month. For example, the June factor for residual fuel oil is slightly less than the May and July values, making a bump in the curve. As there is little difference in the magnitude of these seasonal factors, it is possible that this variation is due to the small number of observations (7 years) and the data variability.

After seasonal factors are derived, the most recent 3-year period (from January through December or from July through June) is deseasonalized. The average of the deseasonalized 36-month series determines the midpoint of the deseasonalized average band. The standard error of the deseasonalized 36 months is calculated adjusting for extreme data points. The width of the average range is twice this standard error.

The upper curve of the average range is defined as the average plus the seasonal factors plus the standard error. The lower curve is defined as the average plus the seasonal factors minus the standard error.

Note 7: Movements

Movements of crude oil between PAD Districts are reported on Form EIA-817, *Monthly Tanker and Barge Movement Report*, and on Form EIA-813, *Monthly Crude Oil Report*. Petroleum product movements are reported on Forms EIA-817 and EIA-812, *Monthly Product Pipeline Report*. Net receipts is the difference between total movements into and total movements out of each PAD District by pipeline, tanker, and barge. For survey descriptions and other detail, see Explanatory Note 1.2.

Note 8: Preliminary Monthly Statistics

Weekly data (Forms EIA-800, 801, 802, 803, and 804) are used to estimate the most recent monthly values for the *Summary Statistics* section. Since some of the weekly reporting periods overlap two adjacent months, it is necessary to use weighting factors in the calculation of the monthly values.

To estimate crude oil and petroleum product imports, crude oil input to refineries and production of petroleum products for a specific month, the weekly estimates are weighted by the number of days of that month included in each week, then summed.

End-of-month stock levels of crude oil and the major products (motor gasoline, distillate fuel oil, and residual fuel oil) are calculated in a similar manner, but use only the two weekly reporting periods that cover the end-of-week stocks before and after the end of the month. The end-of-month stock level is calculated by first calculating the stock change between the two weeks. The daily stock change between the two end-of-week stock levels is then calculated. This number is multiplied by the weighting factor of the earlier of the two weeks (the week that covers the last day of the month of interest). This change is added to the earlier of the two end-of-week stock levels to estimate the end-of-month stock level.

Preliminary monthly estimates of domestic crude oil production are calculated as described in Explanatory Note 3.

Note 9: Notes on Tables

Note 9.1 Crude Oil and Petroleum Products Overview statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Crude Oil and Petroleum Products Stock Withdrawal (+) or Addition (-), Petroleum Products Supplied, Total Imports, Crude Oil Imports, Total Exports, and Crude Oil Exports appear as labeled in Table 4. Total Production and Crude Oil Production appear under Field Production in Table 4.

- Natural Gas Plant Production is the sum of Natural Gas Liquids and Finished Petroleum Products Field Production in Table 4.

- Petroleum Products Imports is the sum of Natural Gas Liquids and LRGs, Other Liquids, and Finished Petroleum Products Imports in Table 4.

- Total Crude Oil and Petroleum Products Ending Stocks appear in thousands of barrels in Table 2.

Note 9.2 Crude Oil Supply and Disposition statistics on the referenced line appear in Table 1 of the Detailed Statistics, except where noted.

- Total Domestic Field Production, Alaskan Field Production, SPR Imports, Other Imports (synonymous with Imports Gross Excl. SPR), SPR and Other Primary Stocks Withdrawal (+) or Addition (-), Unaccounted For Crude Oil, Refinery Inputs, and Exports appear as labeled in Table 1.

- Crude losses and Product Supplied appear as labeled in Table 4.

- SPR Ending Stocks and Other Primary Ending Stocks (synonymous with stocks excluding SPR) appear in thousands of barrels in Table 1.

- Total Crude Oil Ending Stocks appear in thousands of barrels in Table 2.

- Total Imports appear in Table 4.

Note 9.3 Finished Motor Gasoline Supply and Disposition statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Unleaded Percent of Total Product Supplied represents the ratio of finished unleaded motor gasoline product supplied to total finished motor gasoline product supplied, multiplied by 100 and rounded to the nearest tenth.

- Ending Stocks appear in thousands of barrels in Table 2.

Note 9.4 Distillate and Residual Fuel Oil Supply and Disposition statistics on the referenced lines appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Exports, and Product Supplied appear as labeled in Table 4.

- Ending Stocks appear in thousands of barrels in Table 2.

Note 9.5 Liquefied Petroleum Gases Supply and Disposition statistics represent the aggregation of statistics on ethane, propane, butane, butene-propane mixtures, ethene-propane mixtures, and isobutane. The statistics on the referenced line appear in Table 4 of the Detailed Statistics, except where noted.

- Total Production is the sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied appear as labeled in Table 4.

- Ending stocks appear in thousands of barrels in Table 2.

Note 9.6 Other Petroleum Products Supply and Disposition statistics represent the aggregation of statistics on natural gasoline, isopentane, unfractionated stream, plant condensate, other liquids, and all finished petroleum products except finished motor gasoline, distillate fuel oil, and residual fuel oil. The statistics on the referenced line are aggregated from Table 4 of the Detailed Statistics, except where noted.

- Total Production is the aggregated sum of Field Production and Refinery Production in Table 4.

- Imports, Stock Withdrawal (+) or Addition (-), Refinery Inputs, Exports, and Product Supplied are aggregated from Table 4.

- Ending stocks are aggregated from ending stocks in thousands of barrels in Table 2.

Note 9.7 Table 1. U.S. Petroleum Balance

- Lines (1) through (3): Crude oil (including lease condensate) production for Alaska, Lower 48 States, and Total U.S. are calculated by calling the conservation agency in Alaska for Alaskan crude oil production during the month, estimating crude oil production in the United States (see Explanatory Note 3), and taking the difference to equal production in the Lower 48 States.

- Line (5): SPR Imports are reported on Survey Form ERA-60.

- Line (12): Total Other Sources equals crude oil stock withdrawal (+) or addition (-) plus unaccounted for crude oil minus crude losses in Table 2.

- Line (14): Natural gas plant liquids (NGPL) Production equals field production of natural gas liquids (NGL) plus field production of finished petroleum products in Table 2.

- Line (15): NGPL Imports equals the sum of the Im-

ports of natural gasoline and isopentane, unfractionated stream, and plant condensate imports in Table 2.

• Line (16): *NGPL Stock Withdrawal (+) or Addition (-)* is equal to the sum of stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate in Table 2.

• Line (17) equals the sum of lines (14), (15), and (16).

• Line (18): *Unfinished oils and gasoline blending components Stock Withdrawal (+) or Addition (-)* equals stock withdrawal (+) or addition (-) for other hydrocarbons and alcohol, for unfinished oils, motor gasoline blending components, and aviation gasoline blending components.

• Line (20): *Other Hydrocarbons and Alcohol New Supply* equals the field production of same in Table 2.

• Line (21): *Refinery Processing Gain* is a balancing item equal to total refinery production minus total refinery input in Table 2.

• Line (23): *Total Other Liquids* equals the sum of lines (18) through (22).

• Line (24): *Total Production of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; plus crude oil product supplied in Table 2.

• Line (25): *Gross Imports of Refined Products* equals imports of LPG plus imports of finished petroleum products in Table 2.

• Line (26): *Exports of Refined Products* equals exports of LPG plus exports of finished petroleum products in Table 2.

• Line (27): *Net Imports of Refined Products* equals the difference between lines (25) and (26).

• Line (28): *Total New Supply of Products* equals crude oil input to refineries plus field production of NGPL and finished petroleum products; plus imports of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of natural gasoline and isopentane, unfractionated stream, and plant condensate; plus stock withdrawal (+) or addition (-) of other hydrocarbons and alcohol, unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus imports of unfinished oils, aviation gasoline blending components, and motor gasoline blending components; plus field production of other hydrocarbons and alcohol; plus total refinery production; minus total refinery input; minus crude oil product supplied plus imports of LPG and finished petroleum products; minus exports of LPG and finished petroleum products in Table 2.

• Line (29): *Refined Products Stocks Withdrawal (+) or Addition (-)* equals the sum of stock withdrawal (+) or addition (-) for LPG and finished petroleum products in Table 2.

• Line (30): *Total Petroleum Products Supplied for Domestic Use* equals total products supplied in Table 2.

• Lines (31) through (35) equal the respective products supplied in Table 2.

• Line (36): *Other Products Supplied* equals the sum of natural gasoline and isopentane, unfractionated stream, plant condensate, aviation gasoline, naphtha < 400 Deg. F for petrochemical feedstock use, other oils > 400 Deg. F. for petrochemical feedstock use, special naphthas, lubricants, waxes, cokes, asphalt, road oil, still gas, unfinished oils, motor gasoline blending components, aviation gasoline blending components and miscellaneous products supplied in Table 2.

• Line (37): *Total Product Supplied* is equal to total products supplied in Table 2.

• The sum of lines (38) and (39), stocks of *Crude Oil and Lease Condensate (Excluding SPR)* and stocks held by the *Strategic Petroleum Reserve*, equals ending stocks of crude oil in Table 2. SPR stocks are reported on Form EIA-813.

• Line (43): stocks of *Refined Products*, equals the sum of LPG and finished petroleum product stocks in Table 2.

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